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LINGUISTIC SOCIETY OF AMERICA ANNUAL MEETING (42D, CHICAGO, DECEMBER 28-30, 1967). MEETING HANDBOOK.

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THIS HANDBOOK WAS PREPARED BY THE CENTER FOR APPLIED LINGUISTICS TO SERVE AS A GUIDE FOR THOSE ATTENDING THE FORTY-SECOND ANNUAL MEETING OF THE LINGUISTIC SOCIETY OF AMERICA, AS WELL AS TO PROVIDE A PERMANENT RECORD OF THE PAPERS PRESENTED AT THE MEETING. THERE ARE THREE PARTS TO THE HANDBOOK--(1) THE OFFICIAL PROGRAM OF THE MEETING, (2) AUTHORS' ABSTRACTS OF PAPERS TO BE DELIVERED THERE, AND (3) ABSTRACTS OF PAPERS SUBMITTED BUT NOT TO BE READ. THESE ONE-PAGE ABSTRACTS ARE ARRANGED IN ALPHABETICAL ORDER ACCORDING TO AUTHOR AND IN SOME CASES ARE ACCOMPANIED BY HANDOUTS. THE TOPICS DISCUSSED RANGE OVER THE ENTIRE FIELD OF LINGUISTICS. COPIES OF THE PAPERS WILL NOT BE DISTRIBUTED AT THE MEETING NOR ARE THEY SCHEDULED FOR PUBLICATION. THIS DOCUMENT IS ALSO AVAILABLE FOR $2.00 FROM THE CENTER FOR APPLIED LINGUISTICS, 1717 MASSACHUSETTS AVENUE, N.W., WASHINGTON, D.C. 20036. (JD)

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LINGUISTIC SOCIETY OF AMERICA

Forty-Second Annual Meeting
December 28-30, 1967
Chicago, Illinois

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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MEETING HANDBOOK

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LINGUISTIC SOCIETY OF AMERICA

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MEETING HANDBOOK

INTRODUCTORY NOTE

This Handbook has been prepared by the Center for Applied Linguistics to serve as a guide to those attending the Forty-Second Annual Meeting of the Linguistic Society of America, as well as to provide a permanent record of the papers presented at the meeting. It has been compiled and published with the approval of the Executive Committee of the Linguistic Society of America.

The Handbook consists of three parts: (1) the official program of the meeting; (2) the abstracts, as submitted, of the papers scheduled for delivery; (3) the abstracts of "Papers Read by Title Only". The abstracts are arranged in alphabetical order according to author, and in some cases are accompanied by handouts.

The idea for such a Handbook was suggested by the Center for Applied Linguistics in 1964 and the first Linguistic Society of America Meeting Handbook was prepared for the winter 1965 LSA meeting in Chicago.

The Center is grateful to Professor A. A. Hill for his cooperation in the preparation of this volume.

Program

PROGRAM

Forty-Second Annual Meeting

of the

Linguistic Society of America

PICK-CONGRESS HOTEL

Michigan Avenue at
Congress Street

Chicago, Illinois 60605

December 28–30, 1967

Committee on Arrangements: Jack Berry, Chairman,
Eric Hamp, Andrew Schiller

PROGRAM OF THE SESSIONS

Meeting of the Executive Committee on Wednesday, December 27, at 7:00 P.M., in the Tally Ho Room.

The Registration Desk will be open, in front of the Great Hall, for an hour between 7:00 P.M. and 8:00 P.M.

All sessions, except the Banquet and the evening session Dec. 29 will be held in the Great Hall.

The Banquet and evening session on Dec. 29 will be in the Florentine Room.

THURSDAY, DECEMBER 28

8:00 A.M. Registration

9:00 A.M. FIRST SESSION, READING OF PAPERS

1. Eric P. Hamp, *University of Chicago:* The IE Syllabic Nasals in Albanian and Historical Explication. (20 minutes)
2. Bohdan Saciuk, *University of Illinois:* Some Basic Rules of Portuguese Phonology. (18 minutes)
3. Sherman M. Kuhn, *University of Michigan:* How to Make a Concordance—in the Ffteenth Century. (20 minutes)
4. C. Leroy Baker, *University of Illinois:* English Verbs Which Take Question—Word Clauses. (20 minutes)
5. Werner H. Veith, *Georgetown University:* German 'Umgangssprache' Langue or Parole? (20 minutes)
6. Stanley Starosta, *University of Hawaii:* Tsou Focus. (15 minutes)
7. Henry Lee Smith, Jr., *State University of New York at Buffalo:* Suprasegmental Phonemes, Morphophones and Morphemes in English. (20 minutes)
8. Thomas R. Hofmann, *Collège Militaire Royal,* Québec: Affixation in Language. (12 minutes)

1:30 P.M. SECOND SESSION, READING OF PAPERS

9. David M. Perlmutter, *Brandeis University:* The Two Verbs 'Begin.' (20 minutes)
10. Sanford A. Schane, *University of California at San Diego:* On the Non-Uniqueness of Phonological Representations. (15 minutes)
11. Patricia Carrell, *Linguistics Research Center, University of Texas:* Terrace Tone Systems and Igbo. (20 minutes)
12. David C. Bennett, *Yale University:* A Stratificational View of Synonymy. (20 minutes)
13. Ronald E. Buckalew, *Pennsylvania State University:* Syllabicity, Weakening and Bloomfield's Phonemics. (15 minutes)
14. Lauri Karttunen, *The Rand Corporation:* The Identity of Noun Phrases. (20 minutes)
15. Henry M. Hoenigswald, *University of Pennsylvania:* Synonymy, Partial Synonymy, and Incompatibility. (20 minutes)
16. W. C. Watt, *Carnegie-Mellon University:* English Locative Sentences. (15 minutes)
17. Murray Fowler, *University of Wisconsin:* Latin for Computer—II. (10 minutes)

8:00 P.M. ANNUAL INFORMAL BANQUET FOR MEMBERS AND THEIR GUESTS.
After the Banquet, the following address will be given:

Presidential Address by William G. Moulton, *Princeton University:* Structural Dialectology.

FRIDAY, DECEMBER 29

9:00 A.M. THIRD SESSION, BUSINESS MEETING

A. Minutes of the last meeting
B. Report of the Secretary and action thereon.
C. Report of the Treasurer and action thereon.
D. Report of the Executive Committee and action thereon.
E. Report of the Committee on Publications and action thereon.
F. Reports of the Standing Committees, Special Committees, and Delegates and action thereon.
G. Report of the Nominating Committee and action thereon.
H. Appointment of the Committee on Resolutions.
I. Other business, proposed by any member of the Society.

10:30 A.M. FOURTH SESSION, READING OF PAPERS

18. Frank Huffman, *Yale University:* The Elusive Boundary between the Monosyllable and the Disyllable in Cambodian. (15 minutes)
19. James E. Hoard, *University of Kansas:* Complex Phonological Segments in Distinctive Feature Theory. (20 minutes)
20. Mary R. Haas, *University of California at Berkeley:* A Taxonomy of Disguised Speech. (20 minutes)
21. Robert A. Hall, Jr., *Cornell University:* The Roumanian Definite Article and Noun-Phrase. (15 minutes)
22. Robert D. King, *University of Texas:* Push Chains, Drag Chains, and Grammar Simplification. (15 minutes)
23. R. M. R. Hall, *Queens College of the City University of New York,* and Beatrice L. Hall, *State University of New York at Stony Brook:* Yiddish /gib a lez dem brif/ 'Skim this Letter,' and Related Constructions. (20 minutes)

1:30 P.M. FIFTH SESSION, READING OF PAPERS

24. George M. Landon, *The Ohio State University:* The Grammatical Description of Poetic Word Order in English. (15 minutes)
25. Samuel R. Levin, *Hunter College of the City University of New York:* The Integration of Linguistics in a Theory of Poetry. (20 minutes)
26. Yakov Malkiel, *University of California at Berkeley:* Clues from Range of Variation to Dating. (20 minutes)
27. Karl Diller, *Collège Militaire Royal,* Québec: 'Compound' and 'Co-ordinate' Bilingualism: A Conceptual Artifact. (20 minutes)
28. Sheldon Klein, *University of Wisconsin:* Testing an Automated Fieldworker. (20 minutes)
29. Sydney M. Lamb, *Yale University:* A Performance Model. (20 minutes)
30. Karl Teeter, *Harvard University:* Bloomfield and Menominee. (15 minutes)
31. Donald F. Solá, *Cornell University:* Dynamism in Quechua. (20 minutes)

7:00 P.M. SIXTH SESSION, READING OF PAPERS

32. Francis P. Dinneen, S. J., *Georgetown University:* Structure and Analogy. (15 minutes)
33. Franklin C. Southworth, *Columbia University:* Deep Structural Equivalences in Comparative Semantics. (20 minutes)
34. Peter A. Reich, *Yale University:* Competence, Performance, and Relational Networks. (20 minutes)
35. Carter Revard, *Research and Development Corporation*, and *Washington University*: Affixal Derivation, Zero Derivation, and 'Semantic Transformations.' (20 minutes)
36. Herbert J. Izzo, *San Jose State College*: The Gorgia Toscana and Phonetic Science in Sixteenth Century Tuscany. (20 minutes)

SATURDAY, DECEMBER 30

9:00 A.M. SEVENTH SESSION, READING OF PAPERS

37. Robert J. Scholes, *University of Florida:* Acoustic Cues for Constituent Structure: A test of Perception. (20 minutes)
38. Gaberell Drachman, *Ohio State University*: Twana Laryngeals. (20 minutes)
39. Robert S. Kirsner, *Columbia University*: The Role of *zullen* in the Grammar of Modern Standard Dutch. (20 minutes)
40. William Labov, *Columbia University*: Deletion, Contraction, and Inherent Variability of the English Copula. (20 minutes)
41. David DeCamp, *University of Texas*: Vocalic Alternation in Jamaican Creole Iteratives. (15 minutes)
42. Karl E. Zimmer, *University of California at Berkeley*: Some Observations on a Subclass of Turkish Interrogatives. (15 minutes)
43. Wick R. Miller, *University of Utah:* Shoshoni Dialectology. (15 minutes)
44. Wolfgang Wölck, *Indiana University:* Comparative Quechua Phonology. (20 minutes)
45. James D. McCawley, *University of Chicago*: The Respective Downfalls of Deep Structure and Autonomous Syntax. (20 minutes)

1:30 P.M. EIGHTH SESSION, READING OF PAPERS

46. Charles E. Cairns, *University of Texas*: Aspects of Trubetzkoy's Theory of Neutralizations and Markedness. (20 minutes)
47. Julius Purczinsky, *Hunter College of the City University of New York*: The Pre-Indo-European Sources of Proto-Indo-European /w/ and /y/. (15 minutes)
48. Winfred P. Lehmann, *University of Texas*: Number in the Pre-Indo-European Verb. (15 minutes)
49. Richard Carter, *Bolt, Beranek and Newman, Inc.* and *Massachusetts Institute of Technology*: The Phenomenon of Replacement (20 minutes)
50. James A. Matisoff, *Columbia University*: Verb Concatenation in Lahu: The Ramifications of 'Simple' Juxtaposition. (20 minutes)
51. Larry S. Hutchinson, *University of Minnesota*: The Complexity of Compound Sentences. (20 minutes)
52. John U. Wolff, *Cornell University*: The History of the Dialect of the Camotes Islands, Philippines, and the Spread of Cebuano Visayan. (20 minutes)

Abstracts and Handouts

C. LeRoy Baker, University of Illinois

ENGLISH VERBS WHICH TAKE QUESTION-WORD CLAUSES

The chief purpose of this paper is to give a simple characterization of the class of verbs in English which take as object the kind of clause which has been referred to previously as "dependent question" or "question-word clause". The characterization adopted here rests on the fact that the majority of English verbs in this class have a demonstrable semantic connection with the verb know. For instance, it can be shown that learn, one of the verbs taking question-word clauses, must be analyzed semantically as something like come to know. This sort of fact makes it possible to reduce from several dozen to three or four the number of English verbs which need to be subcategorized in the lexicon as taking question-word clauses.

David C. Bennett, Yale University

A STRATIFICATIONAL VIEW OF SYNONYMY

According to a fairly widespread use of the term synonymy, the underlined items in examples (1) and (2) are synonymous.

(1) I went in spite of the rain
I went despite the rain

(2) This time last week I was aboard the Queen Mary
This time last week I was on the Queen Mary

In stratificational terms, example (1) involves semolexemic diversification, whereas example (2) involves hypersemo-sememic diversification. The main purpose of this paper is to justify the necessity for distinguishing these two levels of synonymy.

However, not all examples of semolexemic and hypersemo-sememic diversification are instances of synonymy. The semon underlying in spite of and despite can also be realized lexemically as although and nevertheless, but in spite of, although and nevertheless are not normally considered synonyms. The reason for this is that they are lexotactically in complementary distribution and consequently not substitutable for each other.

An example of hypersemo-sememic diversification that is not an instance of synonymy is provided by after and behind. Here the two lexemes exhibit coincident lexotactic distribution, but their underlying sememes are (semotactically) in complementary distribution. The result is the same as in the above-mentioned case of lexotactic complementary distribution, namely after and behind are not substitutable for each other and consequently not synonymous.

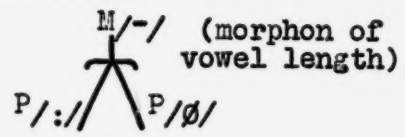
HANDOUT

A Stratificational View of Synonymy

A. Examples of two distinct levels of alternation

(i) Morphophonemic diversification

sleep : slep-; weep : wep-; etc



(ii) Lexomorphemic diversification

good : bett-/be-

B. Examples of synonymy

(i) Semolexemic diversification

1. I stayed at home because of the rain
   I stayed at home on account of the rain
   I stayed at home owing to the rain

2. I went in spite of the rain
   I went despite the rain

(ii) Hypersemo-sememic diversification

3. He was standing before the crowd
   He was standing in front of the crowd

4. This time last week I was on the Queen Mary
   This time last week I was aboard the Queen Mary

C. Examples of diversification that are not instances of synonymy

(i) Semolexemic diversification

5. I stayed at home because of the rain
   I stayed at home because it was raining

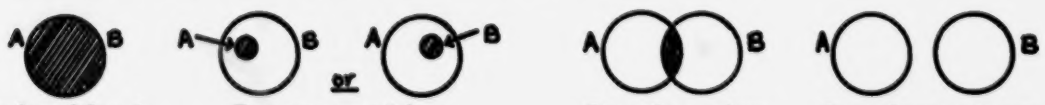
6. I went in spite of the rain
   I went although it was raining
   I went nevertheless

(ii) Hypersemo-sememic diversification

7. behind ~ after

D. Four kinds of relative distribution (cf. B. Bloch, "Contrast", Lg. 29.59-61 (1953))

A and B are the environments of two alternants.



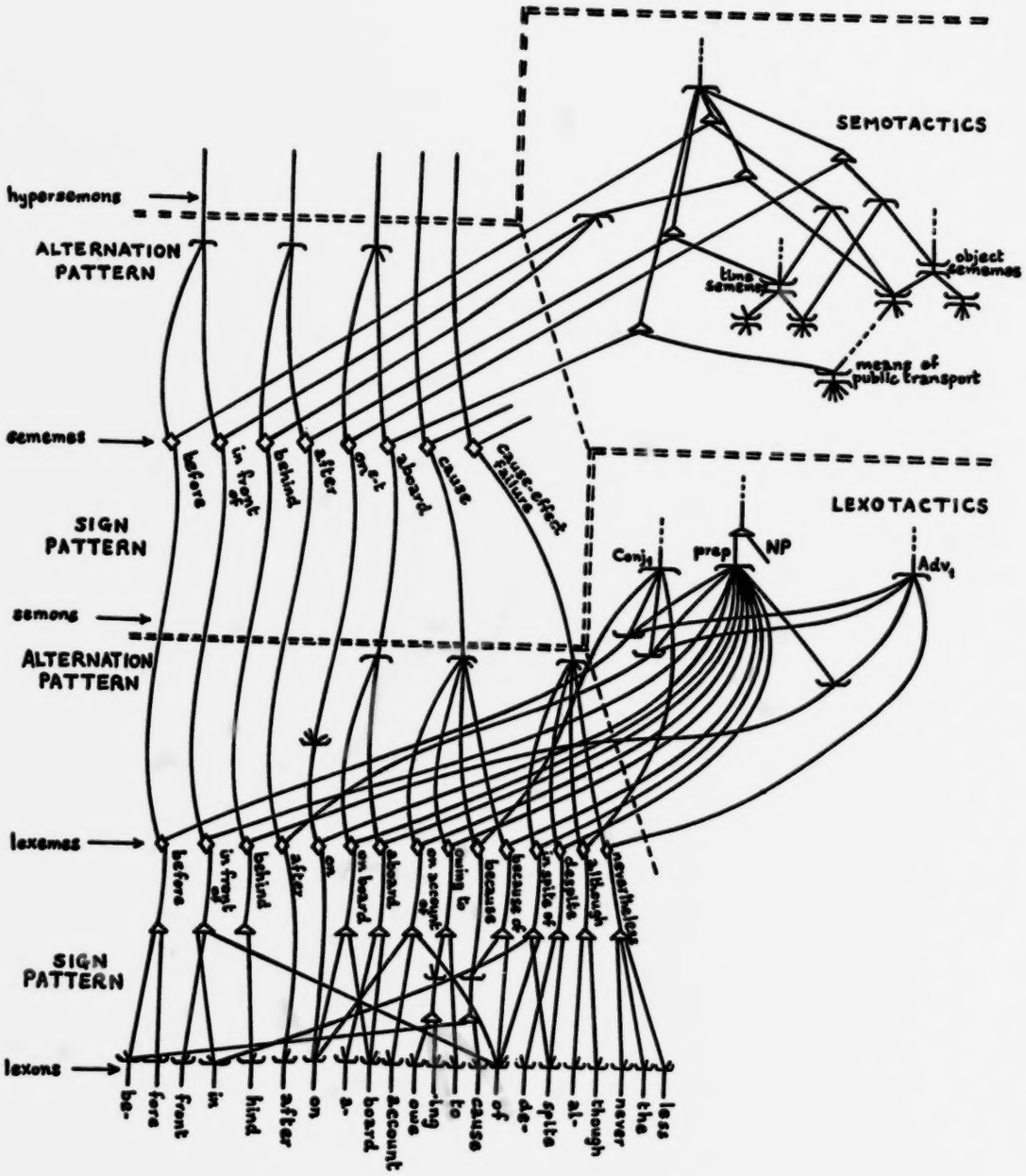


Figure 1. Some examples of hypersemo-sememic and semolexemic diversification.

Ronald E. Buckalew, Pennsylvania State University

SYLLABICITY, WEAKENING, AND BLOOMFIELD'S PHONEMICS

Bloomfield's Language was published in two editions, an American one in 1933 and a British one in 1935. The significance of the differences in the British edition for the study of his concept of the phoneme, as well as for the relevance today of his insights and problems, does not seem to have been recognized. The most pertinent of Bloomfield's revisions concerned the phenomena which he called "syllabic stress" and "weakening". In analyzing these phenomena, Bloomfield perceived the relevance of distinctive features and of redundancy or predictability in terms of both phonological environment and morphophonemic alternations, but he did not utilize these fully or consistently. Although he described the phoneme as a bundle of distinctive features, it is apparent from his other statements and his practice that he conceived of these features as qualities of indivisible phones, not as basic phonemic entities in their own right. One feature which he did isolate was "syllabic stress", but this he regarded as a prosodic phoneme, presumably failing to recognize the implication that if syllabicity could be isolated, so also could voice, nasality, and other features.

In adapting his American book to RP, Bloomfield deleted redundant syllabic stress marks and a note which had justified their presence, thereby bringing his practice of transcription into accord with his principles. Yet he violated these in his treatment of RP [r] and [ə(:)]. Because his approach entailed the biunique classification of phones into phonemes, his decision that [r] and [ə(:)] were allophones of the same phoneme meant that the weakened variant of the vowels in the stressed syllables of nouns such as convict, protest, vacant, and atom was an allophone of the [r--ə(:)] phoneme. Although his principles required that he use one symbol to represent all occurrences of this phoneme, this was too bitter a pill to swallow. Thus, he used instead the phonetic symbols of the separate allophones when transcribing this phoneme. Had he been able to develop more fully the notion that a sound consisted of distinctive features and to focus on the features more than

the whole sound, he might have seen a solution: namely, to list the relevant features of these sounds along with rules for their alteration in weakening and the occurrence of predictable nondistinctive features of [r] and [ə].

Charles E. Cairns, University of Texas

ASPECTS OF TRUBETZKOY'S THEORY OF MARKEDNESS AND NEUTRALIZATION

It is a remarkable--though not very surprising--fact that many of the basic tenets of contemporary theoretical phonology are similar to those held by the Prague School of phonology during the thirties; however, Trubetzkoy's theoretical view of phonology contains many insights which are yet to be incorporated into a formal, universal theory. The central aspects of Trubetzkoy's phonological theory discussed here are those of markedness and neutralization: in particular, the idea that at least some phonological oppositions are characterized by an opposition between two phonemes which differ by only one feature, which is present in one phoneme (the marked one) and absent from the other; in positions of neutralization, furthermore, only the unmarked variant appears. This suggests a universal system, consisting of a small stock of features (corresponding to oppositions), context-sensitive rules for determining which members of oppositions are marked, and neutralization rules. This paper describes the formal requirements which a formal theory must meet if it is to accomodate concepts of markedness and neutralization. It is argued that the proposed universal theory yields a plausible explanation for a number of universals regarding consonant clusters discovered by Greenberg. Moreover, the phonological theory based on markedness and neutralization incorporates a universal hierarchy of features which is reminiscent of Jakobson's theory of optimal oppositions.

Patricia Carrell, University of Texas, Linguistics Research Center

TERRACE TONE SYSTEMS AND IGBO

Recent descriptions of terrace tone systems, in particular those of several West African languages, have claimed that exactly three level tonemes are essential to the description of such systems. Such descriptions label these three tonemes variously as "high, mid, and low", "high, high-change, and low", "echo, step-down, and low", or "same, drop, and low", with special descriptive statements on the complex relationship of "high to mid", "high to high-change", etc. It is the purpose of this paper to show, at least for Igbo, that at the level of systematic phonemics only two tonemes are essential. Evidence is presented to show that entries in the lexicon of an Igbo grammar need only be marked for two tonemes "high" or "low" (in distinctive feature notation as [+h] or [-h]). The superficially intricate relationships between high tonemes and so-called mid tonemes are best explained by a series of "tono-tactic" rules which generate successive terraces of high and mid tones.

Richard Carter, Bolt, Beranek and Newman, Inc. and Massachusetts Institute of Technology

THE PHENOMENON OF REPLACEMENT

Speakers of a language L, when presented with a sound which is foreign to L, strongly tend to replace it with the sound of L which is nearest, in some sense, to the foreign sound. However, this "nearness" cannot be characterized in absolute terms, as simply phonetically nearest, since the same sound will be replaced by different sounds in two different languages. For instance, English [s] is replaced by /h/ in Maori but by /k/ in Hawaiian. This paper is a contribution towards a theory which will predict, on the basis of the phonology of a language, what the replacement of a foreign sound will be, and thus will explain "replacement". It is shown that such a theory must be at least sophisticated enough to take into account the total sound system of the language and sometimes also the system of rules. A theory which uses the notion of "optimal feature tree" and a revised version of Jakobsonian binary features is explicated, and defended by showing that it successfully explains certain replacement phenomena. The paper ends with a request for further replacement data from field workers. A questionnaire will be distributed requesting this data.

David DeCamp, University of Texas

VOCALIC ALTERNATION IN JAMAICAN CREOLE ITERATIVES

Iteration is a common morphological device in Jamaican (as it is in most creoles) for intensification of adjectives, adverbs, verbs, and nouns. Example: logo-logo "to carry something heavy" (< English lug); togo-togo "to pull or drag something" (< English tug). Many iteratives have a large number of stylistic and/or dialectal variants. This variation is not random but consists primarily of predictable vowel alternations similar to an ablaut series. Thus we have symmetrical sets like:

logo-logo	laga-laga	lege-lege
togo-togo	taga-taga	tege-tege

When several hundred such iteratives were plotted in a matrix, several such "ablaut" patterns emerged which were nearly but not quite symmetrical. Some informants report consistent semantic correlates to these vocalic alternations; others insist they are simply stylistic variants. When the gaps in the pattern were presented to informants for recognition, they usually were quickly and correctly identified semantically with the meanings predictable from the pattern. The occasional failures at identification can often be explained in terms of homonymic conflict. This experiment seems to indicate that vocalic alternation functions in this language as a word-forming device which is more formal and structured than phonetic symbolism, though perhaps not enough so to be called a true morphological process.

Karl Diller, Collège Militaire Royal de Saint-Jean

"COMPOUND" AND "CO-ORDINATE" BILINGUALISM: A CONCEPTUAL ARTIFACT

The distinction between "compound bilingualism" and "co-ordinate bilingualism" is widely used in the literature on bilingualism and second language learning. The evidence to support this distinction is very scanty, however, and what evidence there is can be explained by alternative, more plausible hypotheses. In addition, there is some rather crucial evidence that these concepts are misconceived (e.g. the small-scale experiment by Lambert, et al reported in J of Ab and Soc Psych, 1958, which showed no significant difference in the translating speed of so-called "compound bilinguals" and "co-ordinate bilinguals").

The conceptual basis for this distinction comes from two sources: (a) behaviorist learning theory (cf. Ervin and Osgood, "Second Language Learning and Bilingualism", 1954, in Osgood and Sebeok Psycholinguistics; the terminology originated in this paper), and (b) the Saussurean theory of linguistic signs (cf. Weinreich Languages in Contact 1953, 8-11; Weinreich notes, however, that "The purely linguistic evidence [for merged linguistic systems] so far has not been conclusive" p. 9). Both of these foundations have been seriously shaken by criticism from generative grammar.

In this paper we will present conceptual arguments and empirical evidence against the notions of compound and co-ordinate bilingualism. We will also suggest alternative explanations for such phenomena as the ability of a bilingual person to translate between his two languages or to use his two languages separately without interference.

Francis P. Dinneen, S.J., Georgetown University

STRUCTURE AND ANALOGY

The term "analogy" has long been invoked in linguistics to characterize the processes or relations in terms of which apparently different phonological and grammatical phenomena can be reduced to identities. When the notion is fully explored, it can be seen to contain most of the familiar relationships invoked by linguists to regularize linguistic structures, such as immediate constituency, paraphrase or transformations.

The usual expression of an analogy is the rather simple expression "A is to B as C is to D". For the intelligent recognition and exploitation of linguistic analogies, however, several other notions must be made clear. One must recognize that a minimum of four terms are required, and that the principle according to which the identity or similarity is affirmed must be made explicit. This is equivalent to specifying, in Hjelmslev's terms, the degree of derivation of the items being compared. The identity affirmed is therefore essentially relational, and its intelligibility rests on the recognition of another factor required in analogies, the clearest example, called the prime analogate.

Gaberell Drachman, Ohio State University

TWANA LARYNGEALS

Twana output forms display the contrasting vowel-heights i-e, u-o, ə-a. The presence of a laryngeal must be assumed for all Twana forms containing e or o, and it is clear that underlying forms need contain only i, a, ə, and u.

An alternation between laryngeals is also responsible for the derivation of all occurrences of the laryngealised resonants $\overset{ʔ}{w}$, $\overset{ʔ}{y}$, $\overset{ʔ}{l}$, although the source of the laryngeals themselves may be segments of dictionary entries or vowels lost through stress-shift.

A comparison is drawn with other Salish languages, as well as with Nootka. It will be suggested that the non-occurrence in Twana of laryngealised stops ($\overset{ʔ}{b}$, $\overset{ʔ}{d}$) is interpretable in the light of what is probably a universal constraint.

Murray Fowler, University of Wisconsin

LATIN FOR COMPUTER - II

A year ago the phonological and morphological components of a computer-oriented Latin grammar were assumed to be complete except for separate errors having no extended consequences. Since then, after many unsuccessful trials, a plan for the syntactic component, up to a limit which will be defined, has been completed, and rules for the production of simple sentences have been written, hand-tested, and prepared for acceptance by an automaton.

The whole grammar has four components. A dictionary contains about 300 different stems, each typical of a class; this limited collection is thus a paradigm and is assumed to be indefinitely expansible without the requirement of any change in the word-structure rules. The output of the morphological component is a string of symbols which when run through the phonological rules become a Latin word. The output of the syntactic component can be either a string of symbols to which the phonological rules are to be applied or a string of words to which the phonological rules have been applied. Every syntactic rule specifies a dictionary search and the following of a specified routine within the complex of the word-structure rules.

At the present time grammatical nonsense in the form of simple sentences, with verbs in the active or passive voice, can be produced. Some slight hope for the reduction of the degree of nonsensicality has arisen from the use of Roget numbers as collocation (as opposed to colligation) markers.

The program is mainly in Fortran, but the phonological rules are in machine language. Since every word-structure or sentence-structure rule in this grammar offers only a binary choice, it is hoped that the ultimate program will be immediately adaptable to any other grammar similarly constructed. Should that prove to be the case, the program for the phonological component will be rewritten to achieve greater generality.

Mary R. Haas, University of California, Berkeley, and Center for Advanced Study in the Behavioral Sciences

A TAXONOMY OF DISGUISED SPEECH

The use of disguised speech of one sort or another is found in a variety of languages around the world. English "Pig Latin" is a familiar example. Such speech is most often employed by young children and teenagers, generally between the ages of eight and eighteen. Its normal use is oral and the intent is to conceal information from adults or members of a group other than one's own. Since users wish to be able to converse easily with one another, only one code switch is normally made. The starting point is normal speech and each variety of disguised speech can be described in terms of from one to three or four ordered rules. These rules can be classified under the following rubrics: (1) addition, (2) subtraction, (3) reversal, and (4) substitution. Selected examples will be presented. These will be chosen from several languages, including English, Spanish, Thai, Burmese, and Carigára-Waráy.

R.M.R. Hall, Queens College of the City University of New York
Beatrice L. Hall, State University of New York at Stony Brook

YIDDISH /GIB A LEZ DEM BRIF/ "SKIM THIS LETTER" AND RELATED CONSTRUCTIONS

There exists in Yiddish a series of secondary aspectual conjugations in which most verbs in the language may occur, e.g.:

Er heybt on lezn.	"He begins to read".
Er hert oyf lezn.	"He stops reading".
Er git a lez.	"He reads quickly".
Er hot a lez geton.	"He read quickly".
Er halt in lezn.	"He is in process of reading".
Er halt in eyn lezn.	"He is continually reading".

In a generative-transformational investigation of the syntax of Yiddish one is faced with the problem of how to deal most economically with these structures. As we shall show, there are compelling arguments for not introducing them transformationally, but rather for seeing them as part of the phrase structure of the language. However, these secondary aspectual conjugations are obviously not part of the verbal auxiliary as it is presently conceived of. We therefore propose that in a grammar of Yiddish the phrase structure expansion of VP be broadened from

$$VP \rightarrow AUX + MAIN\ VERB$$

to

$$VP \rightarrow AUX + (D) + MAIN\ VERB$$

where D = the secondary aspectuals.

We believe that such a solution would also be applicable to languages other than Yiddish.

Robert A. Hall, Jr., Cornell University

THE ROUMANIAN DEFINITE ARTICLE AND NOUN-PHRASE

Against the customary view of the Roumanian definite article as an inflectional suffix (e.g. in omul "man-the"), it is argued that: (1) the article is a phrasally bound element, coming in second position in the noun-phrase (e.g. omul bun "man-the good") vs. (bunul om "good-the man"); and (2) the only difference between Roumanian and the other Romance languages, in the syntactical functioning of the definite article, lies in its position in the second rather than in the first slot.

Eric P. Hamp, University of Chicago

THE IE SYLLABIC NASALS IN ALBANIAN AND HISTORICAL EXPLICATION

The fate(s) of IE ŋ̥, ɱ̥ in Albanian has never been clear. Early scholars diffidently proposed Alb. e or un (um?), but examples were desperately scarce or have since vanished via better explanations. Mann, Lg 17.19-21, 1941, is impossible, irrelevant, undecidable, or concerned with the right word for the wrong reason.

I propose that the true reflexes are uN in certain labial environments (generally not earlier recognized), a elsewhere. I have 15 supporting etymologies, many new, all new in some respect; some, of course, may be wrong. But the outcome is clear.

Only one is an unquestioned etymon with simple obvious outcome, shtatë '7', and this has been thought deviant (analogy on '6'?). All others have phonetic or morphonological complexities that disguise the preform. Thus, statistics would never solve the problem, and the generality that is the merit of the solution has nothing to do with numbers. Rather, it is because, together with other involved developments of restricted scope, an explication is possible for a diffuse set of forms, including some embarrassing alternations in morphologically or dialectally related forms.

James E. Hoard, University of Kansas

COMPLEX PHONOLOGICAL SEGMENTS IN DISTINCTIVE FEATURE THEORY

In distinctive feature theory all phonological segments have been considered to be one-column, n-row matrices of binary features. In the IPA system, however, some segments are considered to be complex, for example, the affricates t͡s, t͡s̆, and p͡f. Generative phonology, following the American tradition, has to date treated ts, tš, and the like as strident stops in one column matrices whenever morphophonemic evidence indicates that in a particular language affricates function as unit segments. The IPA system, on the other hand, makes explicit the complex nature of affricates. There is much evidence to suggest that two (or more) column matrices should be admitted into distinctive feature theory.

Skagit (Puget Salish) requires a morphophonemic rule which says that [t]+[s] → [ts]. The rule removes segment boundaries to form a complex (two column) segment. A rule [t]+[s] → [c], using only one column matrices, misses the generalization. The bracket notation makes explicit that complex segments *are* phonological units.

Polish has a distinction between a sequence of segments and a complex segment. Trzy, [t][š][i̯], ≠ czy, [tš][i̯]. In rapid speech, the distinction is not usually maintained. This observation can be very simply expressed by the rule: [t][š] → [tš] in rapid speech. Chipewyan, which has a large number of affricates, offers further evidence for admitting complex segments into the theory.

The proposal to treat affricates as two column complex segments can be extended to sharped (and perhaps also to flatted and checked) segments. A consequence of the proposal is that the features strident and sharp may be abandoned without loss of generality.

Henry M. Hoenigswald, University of Pennsylvania

SYNONYMY, PARTIAL SYNONYMY, AND INCOMPATIBILITY

The relation between interchangeability and synonymy may be less simple than either Bar-Hillel (Lg 30.233) or those who have failed to answer his objections to the idea of equating the two (see Chomsky CI 57) have thought. Granted that bachelor occurs in the contexts (1) --hood, (2) --'s degree, and (3) lusty -- while unmarried man does not (more precisely, not in such a way as to make the resulting sequences in turn interchangeable in wider contexts), the question is whether there are reasonable criteria to deny semantic relevance to (1) and, in a different sense, to (2) but not to (3). Such criteria would be welcome in the interest of material adequacy: even though speakers will agree that all bachelors are unmarried men and (ignoring widowers and divorced men) vice versa, they might yet be willing to ascribe the selection of (3) to an aspect of the 'meaning' of bachelor not shared by that of unmarried man. These criteria would be in part transformational ((1)), in part configurational along the lines I suggested in LCLR 19 ((2)). They would have to be based on something better than an amorphous corpus; if workable they should clarify not only synonymy and homonymy ((2)) but also what has been called synonymy-in-context (JL 1.195; among the contexts in which A and B are interchangeable there are some special ones which when filled first with A and then with B yield items that are themselves interchangeable in all wider contexts), Lyons' 'incompatibility' (there are no such special contexts), and the peculiar phenomenon once known, embarrassingly, as 'free variation combined with complementation' (there are only such special contexts; -ed/-(e)n in lived given hewed hewn). Whatever the difficulties in the way of such an approach, they are not the ones so frequently mentioned in the literature.

T.R. Hofmann, Collège Militaire Royal

AFFIXATION IN LANGUAGE

This paper is presented to draw the attention of interested linguists to an almost unexceptioned regularity in language. Examining a number of obvious cases of affixation, we find that an affix derives from a free morph which is on the opposite side of the item to which the affix is attached.[1] We are indebted to J.S. Gruber for this astute observation. In order to make this law stronger and more testable, an independent definition is proposed to distinguish between affixes and enclitics. Certain problems remain, as with any theoretical statement; the source of infixes, and exceptions to the strong statement of the law.

This law has a validity outside of any theory of grammar in which it may happen to be stated, but demands a representation in any such theory. Within the transformational model of language, it apparently calls for a universal transformation. This and other indications point toward a rapprochement between the concepts of performance and competence.

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[1] A somewhat weaker statement can be made which does not depend (for interpretation) on the assumptions particular to any contemporary theory: If a language L has an affix A which attaches to a class of words W and either (1) a free morph M with the same meaning as A or (2) a syntactic class M' to which A would belong by semantic considerations, then if W and M (or M') have a fixed order in language L, A and M (or M') will have W between them.

Frank Huffman, Yale University

THE ELUSIVE BOUNDARY BETWEEN THE MONOSYLLABLE AND THE DISYLLABLE IN CAMBODIAN

Professor Henderson of London pointed out in 1952 that there is no sharp boundary between the monosyllable and the disyllable in Cambodian. In fact, by whatever criterion of syllabicity one may choose, there appears to be a phonetic continuum from monosyllables on the one hand to disyllables on the other. The purposes of this paper are:

1) to decide whether a structural dichotomy between the two exists, and
2) if so, to decide where along the continuum the boundary falls.

There is at one end of the continuum a large class of simple monosyllables which have a single initial consonant. There is at the other end of the continuum a large class of words which are unambiguously disyllabic, and which consist of an unstressed presyllable followed by a stressed syllable. Between these two extremes range a group of words involving sequences of two initial consonants, with almost unlimited distribution. These sequences fall into four phonetic categories on the basis of the kind of transition which occurs between them.

Following a description and exemplification of the four classes, it is found that in classes 1 - 3, C_1 is in complementary distribution with regard to C_2, and consequently that all sequences of two consonants in classes 1 - 3 are structurally /CC/, and words containing them are to be classed as monosyllables. It is further found that words containing sequences of class four are morphophonemic alternants of words which are expandable in careful speech to full disyllables, and are consequently to be analyzed as disyllables. However, in view of the peculiarly loose transition in initial sequences in Cambodian, monosyllables are further sub-divided into <u>simple monosyllables</u>, which have a single initial consonant, and <u>complex monosyllables</u>, which have a sequence of initial consonants.

Larry S. Hutchinson, University of Minnesota

THE COMPLEXITY OF COMPOUND SENTENCES

It is generally held that non-restrictive relative clauses are probably best treated as reductions of compound sentences. Contrary to prevailing thought however, it is postulated herein that restrictive relative clauses are also to be considered reductions of compound sentences. The long-recognized differences between the two clause types is attributed to differences of quantifier-types and to direction of pronominalization (equivalently, notions of "set inclusion", or "feature dominance") in the underlying compounded sentences. Sentences with non-restrictive clauses contain an underlying all quantifier; sentences with restrictive clauses contain an underlying some quantifier.

In deriving both relative clause types from underlying compound structures it is claimed that all recursive properties of grammar result from sentence compounding and that the rule NP→N(S) must be deleted from the universal base component. One immediate result is that left-branching languages (Korean) and right-branching languages (English) are seen to differ not at all in their base components but merely in the manner in which they reduce compound to complex sentences, and questions as to whether the N and the (S) are ordered with respect to each other in the noun-phrase rule do not arise.

In addition, reduction of compound to complex explains or accounts for (a) the systematic paraphrase relations between sentences of the form

Some Eskimos live in igloos and all of them are happy.

↓↓

Eskimos who live in igloos are happy.

(b) facts concerning ordering of embedded and main clauses, (c) certain psycholinguistic facts such as compounding preceding relative clauses in language acquisition, (d) and numerous facts about diverse human languages concerning the overt similarity or identity of relative pronouns to conjunctions.

Herbert Izzo, San Jose State College

THE GORGIA TOSCANA AND PHONETIC SCIENCE IN SIXTEENTH-CENTURY TUSCANY

Opponents of the hypothesis of Etruscan substratum origin of the "aspirations" (i.e., spirantizations) called gorgia toscana have claimed that the non-attestation of the "aspiration" of /-p-/ and /-t-/ in the writings of sixteenth-century Italian philologists (some of whom do mention the "aspiration" of /-k-/ and /-č-/) constitutes evidence of late origin of "aspirated" /-p-/ and /-t-/ and consequently, evidence of the incorrectness of the substratum hypothesis. Defenders of the substratist position have countered that this testimony of silence is insignificant, that no reference to the "aspirates" is to be expected from sixteenth-century Tuscans because (1) lacking knowledge of other languages and dialects, they were unaware of the special features of their own pronunciation and (2) having no knowledge of phonetics and no phonetic symbols, they could not have described or transcribed the gorgia sounds if they had been aware of them.

Direct examination of the relevant documents shows that the allegations of the pro-substratists are incorrect, that several sixteenth-century linguists were acquainted with various foreign languages, including some in which the gorgia features were phonological, and that some of them were able to give excellent descriptions of consonants, including [θ] and [ɸ]. Moreover, the evidence against the existence of these sounds in sixteenth-century Tuscan is not entirely evidence of silence; for one author stated specifically that the "aspirate of T" did not occur in Tuscan, and that the "true aspirate of P" (as contrasted with [f]) occurred only in Greek.

Lauri Karttunen, RAND Corporation

THE IDENTITY OF NOUN PHRASES

It is generally assumed that certain grammatical processes, such as pronominalization, involve the deletion of an underlying noun phrase. This deletion rule, sometimes called IDENTICAL NP DELETION, is supposedly a linguistic universal. However, it has proved difficult to specify exactly what constitutes the kind of identity required by the rule. The following three conditions are usually mentioned: (1) Identical constituent structure, (2) Morpheme-for-morpheme identity, and (3) Coreferentiality. The present paper tries to demonstrate that (3) is not only a necessary but also a sufficient condition for noun phrase identity and that it is doubtful whether (1) and (2) even play any role in the deletion of constituents other than NP. That is, linguistic identity seems to be an essentially semantic notion that is not related directly to either (1) or (2).

Two new proposals for the treatment of noun phrase identity are discussed. The first is a general well-formedness condition on phrase markers to the effect that NP's with identical referential indices must dominate subtrees that are identical in the sense of (1) and (2). The second proposal, which is ultimately adopted, is the following:

> (4) In the deep structure, some NP's are marked as referential by assigning an index to them; for each set of NP's with identical indices, only the topmost NP is expanded to a subtree in which lexical items are inserted. The rest of the coreferential NP's are unexpanded terminal symbols. The semantic component of the grammar determines the meaning of the expanded NP by processing the subtree it dominates, and the resulting set of semantic features is assigned to all NP's with that particular referential index.

The above condition makes a strong claim about the nature of natural languages by restricting severely the class of possible underlying structures. In particular, it rules out a certain type of recursion: the nesting of coreferential noun phrases which has been allowed in all previous formulations of constituent structure. Notice that (4) among other things entails that there is no rule such as what has commonly been referred to as IDENTICAL NP DELETION.

Robert D. King, University of Texas

PUSH CHAINS, DRAG CHAINS, AND GRAMMAR SIMPLIFICATION

A criticism sometimes made of generative phonology is that it provides no principled basis for explaining causally related shifts of the kind described by André Martinet (specifically "push chains" and "drag chains"). This criticism is examined and rejected. It is shown that such shifts reduce to special cases of simplification in the phonological component of a grammar.

Two points in particular are argued. First, push-chain and drag-chain type changes are manifested in general at neither the systematic phonemic nor the taxonomic phonemic level; rather they are phonetic. Second, such changes can be accounted for in a natural way within generative phonology by means of rule simplification. The forms of such simplification are discussed and illustrated, in particular the type of simplification known as "alpha-variable generalization" which seems to provide the mechanism for push chains and drag chains in most cases. Examples are taken from Germanic, Old High German, Yiddish, and American English.

Robert S. Kirsner, Columbia University

THE ROLE OF ZULLEN IN THE GRAMMAR OF MODERN STANDARD DUTCH

Contemporary grammars of Modern Standard Dutch teach that zullen is the "auxiliary verb of the future tense". In spite of the dissatisfaction of such linguists as A.W. de Groot and F.G. Droste, the exact meaning of zullen and the precise mechanism by which it can function as a future auxiliary remains to be elucidated. C.L. Ebeling's recent discussion, containing important suggestions, constitutes no final solution.

We propose that the use of zullen in Modern Standard Dutch follows from its membership, together with the forms moeten and kunnen, in a system which characterizes occurrences as hypothetical rather than real. Because zullen -- in contrast to the other elements of the system -- does not specify the degree of likelihood of the event in question, it may be interpreted as signalling futurity, the intention of the speaker, or inference. Seen in this framework, the particular textbook functions of zullen, both as a "modal auxiliary" and as a "future auxiliary", illustrate the following principle: the speaker will favor that particular member of a closed system of semantic oppositions whose meaning is least inappropriate to a given message.

Sheldon Klein, University of Wisconsin*

TESTING AN AUTOMATED LINGUISTIC FIELDWORKER

An automated linguistic fieldworker (AUTOLING) is now at the testing stage. Results of analyses of various problems taken from the textbook: Koutsoudas, Writing Transformational Grammars: An Introduction, McGraw-Hill, 1966, will be presented.

The system interacts via a teletype with a live informant assumed to be bilingual in English and the language under analysis. For purposes of the tests described in this paper, a linguist used the problem solutions provided in the textbook as the basis for his responses as an 'informant'.

The analytic methods used are heuristic rather than algorithmic, and yield grammars containing morphological, phrase structure and transformational rules.

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*The following non-members of the Society are co-authors: William Fabens, Robert G. Herriot, William J. Katke, Michael A. Kuppin and Alicia Towster.

S.M. Kuhn, University of Michigan

HOW TO MAKE A CONCORDANCE -- IN THE FIFTEENTH CENTURY

The twentieth century has already surpassed all preceding centuries in the number and magnitude of its concordances. The application of computer techniques has opened new vistas to the concordance maker, while the use of concordances in lexicography promises to revolutionize that venerable art. This antiquarian paper proposes to look back at an earlier age to see what a fifteenth-century concordance was like and to note how some of the methods and techniques still in use originated.

British Museum MS. Royal 17.B.1, written in the first half of the fifteenth century, contains the first known concordance to an English book. In addition, it has the compiler's own preface, in which he describes his work, explains its uses, and incidentally shows us how he went about compiling it. His was a concordance to the Wycliffite translation of the New Testament, and his quotations indicate that he used both the earlier (c1384) and the later (c1395) versions. It is difficult to say how much his methods owed to the earlier concordances to the Vulgate or to earlier English--Latin glossaries and vocabularies, but this compiler was the first to apply those methods to an English concordance, and he seems to have refined upon any techniques which he borrowed.

A few matters of interest are these: the compiler's method of alphabetizing the entries; his choice of grammatical forms for the noun and verb entries; his difficulties with English spelling and how he solved them, or failed to solve them; his handling of variant spellings, inflected forms, synonyms, homonyms, derivatives; and his occasional use of encyclopedic Scriptural references.

William Labov, Columbia University

DELETION, CONTRACTION, AND INHERENT VARIABILITY OF THE ENGLISH COPULA

The non-standard vernacular of Negro speakers shows sentences of the form He my brother and They with us, in which the copula forms is and are do not appear. It has been suggested that such sentences reflect an underlying phrase structure of the type NP + NP, NP + PP, etc., similar to that proposed for Creole grammars or for certain stages in the grammars of young children. However, the study of yes-no questions, modals and emphatics, tag questions, elliptical replies and comparatives, shows that in sentences of these types copula forms are invariant features of the non-standard dialect; derivations which do not posit a copula in the phrase structure are complex and unattractive. Furthermore, when the rules for contraction of the copula in standard English are specified, it appears that wherever the standard cannot contract, the non-standard dialect cannot delete. Deletion of the copula is a very late rule of the grammar, conditional upon contraction. Moreover, copula deletion shows inherent variability for speakers of all ages: it is a variable controlled by a large number of phonological and grammatical conditions. Quantitative relations among these conditions reinforce the conclusion that the deletion rule acts upon the contracted form. This conclusion is consistent with other findings that differences between this dialect and standard English are greater in surface structure than in the underlying representation.

Sydney M. Lamb, Yale University

A PERFORMANCE MODEL

Although various criticisms can be levelled at some of the ways in which the terms competence and performance have been used, the basic distinction behind these terms is very important. In stratificational theory, a competence model is a network of roughly the type characterized in Outline of Stratificational Grammar (Georgetown, 1966), although various revisions have been made since it was written. Such a network, consisting of a series of subnetworks called stratal systems, functions as a code which relates all acceptable expressions in the language to their semantic interpretations (and also to their structural representations on each of the strata).

The performance model incorporates the competence model directly, without any alteration in its form or organization. It consists of (1) the competence model, i.e. the network, together with (2) specifications of the processes by which the network is used for encoding (i.e. conversion from semantic representation to expression) and decoding (conversion from expression to semantic representation). These processes are of two main types, both of which operate in normal encoding and decoding: (1) formation of traces of portions of tactic patterns (normally operative only in semotactics and lexotactics) and (2) transmission of signals through the network and through traces. Trace formation involves the construction within short-term memory of a trace of that portion of the tactics which is traversed by trace-forming signals originating at points of intersection of the tactics and the realizational portion of the stratal system. When a trace-forming signal reaches the top of the tactics, a "business signal" starts downward through the trace. These processes operate in much the same way for both encoding and decoding.

George M. Landon, Ohio State University

THE GRAMMATICAL DESCRIPTION OF POETIC WORD ORDER IN ENGLISH

The literatures of linguistics and the applications of linguistics to stylistics and literary criticism now contain several articles proposing means by which a generative grammar may be made to account for the instances of unusual word order frequently found in poetry. In this paper, I survey these proposals, exploring the implications of each for linguistic theory. I conclude that each of the proposals is theoretically inadequate. I then re-argue the necessity of finding a theoretically motivated way of describing instances of "poetic word order" in English and sketch a way in which this might be done.

W.P. Lehmann, University of Texas

NUMBER IN THE PRE-INDO-EUROPEAN VERB

In studies of verb forms in PIE it has long been clear that some personal endings, e.g. those of the dual, the first and second plural, are difficult to reconstruct; some IEists have even proposed that these endings were later than those of the singular and the third person plural. Yet in the discussions little attention was given to other segments of the language, such as syntactic patterns, nominal forms and even phonology; and the earlier system was reconstructed if at all, with the verbal categories of Sanskrit, with empty spaces for the difficult forms.

I propose that the system developed from one in which number was not marked. This system is to be posited for the pre-IE period discussed in my article on earlier stages of the Indo-European nominal inflection Lg 34.179-202, for which I posit four cases but no gender or number.

For the parallel verb system I posit three persons. Syntactically there was congruence between nominal forms and verbs, as well as between pronominal forms and verbs. Evidence of the congruence patterns survives most clearly in the third person. The endings we must posit for the pre-IE third person vary from zero (in the pre-perfect -xe -the -e < -x -th -∅) to (n)t, r, etc. I assume that these endings varied as did the final consonant of the congruent noun.

As vocalic endings were introduced, in the phonological developments referred to as ablaut, a number distinction resulted in the noun. Because of the congruence between nouns and verbs, this distinction led to a differentiation between some 3rd person forms used only for the singular and others used only for the plural, as well as to an introduction of first and second plural endings and dual endings. The paper discusses these developments in further detail. It also proposes a verbal system for the relevant stage of pre-Indo-European.

Samuel R. Levin, Hunter College of the City University of New York

THE POSITION AND FUNCTION OF LINGUISTICS IN A THEORY OF POETRY

A linguistic theory of poetry must contribute to an explanation of why poetry is poetry and not merely language. It must account, in other words, for the fact that poetry is language that produces an esthetic effect. To accomplish this it is necessary to ascertain the competent responses, over and above those to the language as language, that characterize our appreciation of poetry--it being these responses that the esthetic effect consists in--and then correlate these responses with linguistic or other structures that represent satisfactory formal analogues. If this is presented, along with an account of the purely linguistic responses, then the theory may be said to provide an explanation of poetry.

Among the competent responses to poetry are that it is characteristically unified, complex, and novel. The paper discusses the role that these responses play both in the linguistic analysis of poetry and within the framework of a general critical hierarchy.

HANDOUT

The Position and Function of Linguistics in a Theory of Poetry

Critical Ranks Stages	Input	Processing	Output
Valuation	good: bad successful: unsuccessful	better than: worse than more successful: less successful	classic: nonclassic
Evaluation	unity, novelty complexity	assessment of balance, proportion, combination	good: bad successful: unsuccessful
. . . . .	. . . . .	. . . . .	. . . . .
Linguistics	unity, novelty, complexity (presystematic)	linguistic analysis	linguistic generalizations [unity, novelty, complexity, (systematic)]
. . . . .	. . . . .	. . . . .	. . . . .
Value	language of the poem	intuitive responses to formal structure	esthetic experience [unity, novelty, complexity (presystematic)]

James D. McCawley, University of Chicago

THE RESPECTIVE DOWNFALLS OF DEEP STRUCTURE AND AUTONOMOUS SYNTAX

It is held by many that syntactic representation and semantic representation are of different formal natures, that there is a linguistic 'level' of 'deep structure' which serves as input to both a system of syntactic 'transformations' and a system of semantic 'projection rules' (which convert deep structures into the corresponding surface representations and semantic representations respectively), and that there is a difference in formal nature between 'transformations' and 'projection rules'. Lakoff and Ross have recently contested these three points and rejected the level of 'deep structure' which those points imply. Sentences such as

John and Harry love Mary and Alice respectively.

John and Harry love their respective wives.

Those men love their respective wives.

provide confirmation of Lakoff and Ross' contentions by raising the following dilemma: if there is a level of deep structure, then either (1) it precedes the transformation involved in the examples, in which case 'deep structure' will involve virtually the whole of semantic representation, or (2) it follows that transformation, in which case deep structure no longer uniquely determines semantic interpretation, or (3) that transformation must be rejected in favor of a 'projection rule' which is involved in some instances of respective/respectively and a 'transformation' which is involved in the remaining instances.

Y. Malkiel, University of California, Berkeley

CLUES FROM RANGE OF VARIATION TO DATING

To the many techniques devised by linguists in an effort to arrive at an absolute or a relative dating there may be added one that concentrates on abnormal accumulations of variants. If the paradigm of a verb, in general, shows a high degree of tightening except in certain isolated spots where undifferentiated or weakly differentiated variants seem to coexist, the chances are that the forces of attrition and leveling have not yet had time to assert themselves. The variants may have arisen either externally, through diffusion (dialect mixture), or internally, within an uncontaminated dialect, through the free interplay of analogy. What matters most in this context is not the identification of the most plausible model on which each form has been patterned, but an estimate of the time depth. In some favored instances independent proof, direct or indirect, of the recency of the process can be supplied. Two such cases will be briefly considered: the Old Hispano-Romance equivalents of Lat. traxī 'I dragged' (OSp. trexe, traxe, troxe, truxe, trogue, trasqui, traí, etc.) and the syncopated future in Old Spanish. The point at issue is to determine where, in situations offering no such corroborative evidence, the likelihood of the recency of a process can be inferred from striking conglomerations of variants.

HANDOUT

Clues from Range of Variation to Dating

A. The Method at Issue

1. The growing scope of techniques available to scientists for the purpose of dating.

2. Is an abundant and, in certain respects, erratic corpus of variants apt to yield any valuable clues to dating (specifically, to the relative recency of an event)?

3. Three major causes for the rise of an abnormal wealth of variants.

4. Contrasting speeds in the leveling-out of "unprofitable diversity".

5. The choice of two illustrative examples: (a) the strong, sigmatic preterite of trahere (traxī) in Hispano-Romance, and (b) the syncopated future in Old Spanish.

B. Latin traxī in Romance: its Descendants and Substitutes

I. Preliminaries --

1. History of the problem.

2. The record of cognate languages: OProv., OFr. trais, OSard. trassi, It. trassi, Rum. trase.

3. Hispano-Romance transmutations of the sound sequence -ax-: axe 'axis, axle', max-illa, -ella 'jaw', taxus 'yew', saxum 'rock, boulder', laxāre 'to slacken', laxus 'roomy, loose, relaxed', fraxinus 'ash-tree', *trag-, *trax-īnāre 'to drag' (cf. Fr. traîner, It. trascinare), Ar. šuwâr 'trousseau', Germ.-Lat. tax-u, -ōne, -*ūcu 'badger'.

4. Other peculiarities of the Hispano-Romance paradigm of trahere.

5. The compounds of traer.

6. Personal endings.

7. A homonymic conflict.

8. Relation to other verbs.

II. The normal outcome of traxī: trexe, treisse (Mod. Sant. trije)

1. A new strategy.

2. The record of the E/I preterite.

3. An alliance of peripheral zones?

III. Paradigmatic resistance to sound change: traxe

1. The status of this variant.
2. The record of this variant.

IV. Innovative formations

1. The central-vowel series:
   (a) The trasque type.
   (b) The traí type.
2. The back-vowel series:
   (a) The tro(u)gue/trugue type.
   (b) The trouge type.
   (c) The trouve type.
   (d) The tro(u)xe type, including trux-, troix-, and truix-e.
   (e) Mixed types.

V. Patterns of wavering

VI. Avoidance of the preterite of traer

VII. Conclusion

C. Glimpses of the Syncopated Future in Old Spanish (-er and -ir verbs). Possibilities include:

1. Straight loss of the vowel: podrá (poder).
2. Loss of the vowel with further reverberations.
   (a) Insertion of a homorganic buffer consonant: tembrá (temer), pondrá (poner).
   (b) Metathesis: terná (tener).
   (c) Partial adjustment of the first consonant to the second within the newly formed cluster: istrá (exir), tandrá (tañer), codrá (coger).
   (d) Total assimilation of the first consonant to the second: morrá (morir).
3. Syllabic syncope: dirá (dezir), fará (fazer).
4. Resistance to syncope: sofrirá, reprehenderá.

James A. Matisoff, Columbia University

VERB-CONCATENATION IN LAHU: THE RAMIFICATIONS OF "SIMPLE" JUXTAPOSITION

Early Western scholars, when confronted with the extreme morphological simplicity and syntactic elusiveness of Chinese, pronounced the language to be supra grammaticam -- beyond grammar, in the conventional Indo-European sense.

A striking and important feature of the syntax of many Tibeto-Burman languages is the facility with which two, three, four, or even more verbs may be strung together by simple juxtaposition to form complex verb-phrases. Typically, one of the verbs of the concatenation is the logical head; the others stand in some sort of subordinate relationship to the head. What the precise nature of this subordination is, and in fact whether more than one deep type of subordination is involved, are open and very difficult questions. What is clear is that the subordinate elements of the concatenations serve to provide in a uniform surface way the sort of information that in the surface grammar of languages like English is handled by a formally disparate gamut of subordinating devices: complementary infinitives, -ing complements, modal auxiliaries, adverbs of various types, even whole subordinate clauses.

Lahu is taken as a typical concatenating Tibeto-Burman language. "Fortuitous concatenation" (of coordinate action verbs representing temporally consecutive events) is distinguished from "versatile concatenation" (involving juxtapositorily active or "versatile" verbs). The intricate problem of distinguishing concatenations from lexical compounds or resultative constructions is discussed. "Pre-head" and "post-head" versatile verbs are distinguished and subclassified: of particular interest is the "variable" class of post-head versatiles, which may occur at different points within a concatenation with corresponding change of meaning. Degree of semantic abstraction is correlated with concatenatory productivity.

The role of selectional restrictions in determining permissible concatenations, and the performance constraints on theoretically possible 10- or 11-verb strings are discussed.

Verb-concatenation in Lahu represents a thoroughly alien type of construction to which present generative techniques have not yet addressed themselves, and with which they are not currently equipped to deal.

Wick R. Miller, University of Utah

SHOSHONI DIALECTOLOGY

Dialectologists, for the most part, have worked with particular types of cultural groups: rural, sedentary groups of high population density, in Western Europe or of Western European extraction. The techniques used by dialectologists are tailored to this situation. In addition, conclusions about dialect formation and dialect change are valid only in this setting. This paper will report on research of a very different type of group. Aboriginally, the Shoshoni had a very low population density, were extremely mobile, and had a very wide network of communication but with an extremely limited number of people. Because of the lack of prestige dialects, the mechanism of transmission of dialect features is very different. Although the Shoshoni language is no longer in an aboriginal setting, many of the social, cultural, and geographic features that were important in aboriginal times are still to be found.

David M. Perlmutter, Brandeis University

THE TWO VERBS 'BEGIN'

This paper seeks to determine what type of structures the verb 'begin' appears in in deep structures.

There are four kinds of sentences which provide evidence that 'begin' is in deep structures an intransitive verb which takes abstract (sentential) subjects - analogous to 'seem' and 'happen':

(1) There began to be a commotion.

(2) It began to rain.

(3) The rounding up of volunteers began.

(4) The synonymy of: (a) The noise began to annoy Cal.
(b) Cal began to be annoyed by the noise.

On the other hand, there is evidence that 'begin' takes Animate subjects in deep structures:

(5) Pete is a beginner.

Furthermore, there are sentences which show that 'begin' occurs in deep structures with both an Animate subject and a complement sentence, suggesting that the latter is the object of 'begin' in deep structures:

(6) I tried to begin to work.

(7) I persuaded Tom to begin to work.

(8) Begin to work.

That 'begin' does indeed take objects in deep structures is confirmed by such sentences as:

(9) Clem began the job.

(10) The job was begun by Clem.

(11) Clem began enthusiastically, but he got tired by noon.

We must therefore conclude that 'begin' appears in deep structures both as an intransitive verb with sentential subjects and as a transitive verb with Animate subjects and sentential objects. This phenomenon - the appearance of a verb as both a transitive and intransitive with respect to its complement in deep structures - is not limited to 'begin', but rather appears to be quite widespread in English syntax.

Julius Purczinsky, Hunter College of the City University of New York

THE PRE-INDO-EUROPEAN SOURCES OF PROTO-INDO-EUROPEAN /W/ AND /Y/

PIE /w/ and /y/ belong to a class of resonant phonemes, but was this true of their Pre-IE prototypes? PIE forms with zero-grade in all syllables characteristically have /w/ or /y/ in at least one syllable; and this is usually the syllable with PIE word accent. Accordingly, the Pre-IE sources of /w/ and /y/ could be syllabic and accented, whereas the resonants (in Pre-IE) could not; this requires that they be classed with the ablaut-vowel /e/ and not with the resonants.

PIE resonants, other than /w/ and /y/, could occur initially in a word (without a preceding laryngeal); vowels of the ablaut-series could not so occur. An examination of forms traditionally reconstructed with initial /w/ or /y/ shows that /w/ could occur initially (like the other resonants) while /y/ could not. It follows that PIE /y/ derives from a Pre-IE vowel /i/, but that PIE /w/ is from a merger of Pre-IE /w/ and /u/. Pre-IE is shown to have had a three-vowel system. Pre-IE /w/ may be fitted into the vacant slot in the labial series (voiced non-aspirate).

Peter A. Reich, Yale University

COMPETENCE, PERFORMANCE, AND RELATIONAL NETWORKS

Fodor and Garrett's paper, "Competence and Performance", which documents the failure of transformational theory to predict psycholinguistic data, is reviewed. Relational network theory, based on Lamb's stratificational grammar theory attempts to avoid this failure by incorporating 1) a distinction between linguistic and problem-solving mechanisms, and 2) restrictions which attempt to make relational networks behave the way the brain does. These restrictions include 1) networks consisting of a few types of formally defined finite state elements, which 2) communicate with each other by means of a few types of signals, and which 3) contain all permanent grammatical information completely through network connectivity. The processing must take place 4) in parallel, 5) asynchronously, and 6) in real time. Finally, 7) below the semantic level processing is completely described in terms of network activation, rather than network transformation.

The paper defines three simplicity criteria--structural, behavioral, and definitional. Three hypotheses concerning the relational networks thus defined, namely, linguistic adequacy, behavioral adequacy, and stratificational structure, are discussed. The paper concludes with a warning not to interpret relational network theory as a neurological theory of language, but rather as a formal theory in which a few neurologically oriented restrictions have been incorporated.

Carter Revard, System Development Corporation and Washington University

AFFIXAL DERIVATION, ZERO DERIVATION, AND "SEMANTIC TRANSFORMATIONS"

Marchand has shown that affixally and zero-derived denominal verbs in English, French and German share a few basic patterns of derivation. The present paper demonstates that these patterns can be found in the definitions given in Webster's Seventh Collegiate Dictionary for noun-verbifying affixes (e.g., be-, en-, -ize, de-, -ate). Semantic components and syntactic structures discoverable in those definitions are collated and clarified to show that some denominal verbs have even greater derivational depth than Marchand's account supposes, and that there are subtypes within his types. For each derivational pattern attached to a particular sense of a given affix, an example is provided of the same pattern apparent in the derivation of a non-affixally marked denominal verb.

The findings are then applied to study of diachronic sense-development in multiple-sense denominal verbs (e.g., spot, vt.), showing that each sense is uniquely derived by a particular derivational pathway from a particular sense of the underlying noun. A complication is that a derived verb-sense may undergo further shift (e.g., spot in sense "detect or notice"). Analysis of such shifts gives a way to account for development of synonymic relations between previously unrelated lexical items. This study is extended to include sense-developments such as those observable between capsa and cash or king and kingdom, showing that many such developments proceed along derivational pathways identical to those studied for denominal verbs; some "metaphoric" shifts are shown to follow closely similar and perhaps identical pathways. Thus, elucidation of shifts marked by derivational affixes has provided outlines of a set of "semantic transformations" operative both diachronically and synchronically in English.

Bohdan Saciuk, University of Illinois

SOME BASIC RULES OF PORTUGUESE PHONOLOGY

This paper discusses some of the phonological rules which must be present in a synchronic description of Portuguese. Special attention is given to the development of intervocalic /n/ and /l/, which is characteristic of Portuguese and serves to differentiate it from Spanish. Among the other rules presented are Apocope, Metaphony (again characteristic of Portuguese) and the rules dealing with the Nasalization of vowels. The rules are given in the format of generative phonology in terms of Jakobsonian distinctive features, but all the changes will be also explained in traditional terms. Some claims are made about the underlying representation of Portuguese nouns and adjectives as they will have to be entered in the lexicon of a synchronic generative grammar of the language. It will be pointed out that the ordering of the synchronic rules presented in the paper corresponds closely to the generally accepted diachronic developments of Portuguese phonology.

Sanford A. Schane, University of California, San Diego

ON THE NONUNIQUENESS OF PHONOLOGICAL REPRESENTATIONS

Within phonemics, it has generally been the case that in those environments where there is phonemic neutralization, the neutralized segment is represented by one of the phonemes appearing in a non-neutralized environment. Since the neutralized segment may exhibit phonetic similarity to two or more of the phonemes entering into the neutralization, there exists no nonarbitrary procedure for determining a unique phonemic representation. The concept of the archiphoneme, and in particular as it is embodied within the Jakobsonian feature framework, when applied to phonemic systems, did allow a unique representation, since within a neutralized environment only relevant features had to be indicated. Although generative phonology makes use of distinctive features, it reintroduced nonunique representations in those cases where there was no morphological evidence for the choice of a particular underlying phonological representation. However, the notion of phonological markedness, which is currently enjoying a revival among phonologists, does in fact allow a unique representation for underlying forms within generative phonology. Finally, returning to phonemics, we shall see that with a theory of universal markedness it is possible to represent, in a nonarbitrary way, a neutralized segment by one of the phonemes appearing in a nonneutralized environment.

Robert J. Scholes, University of Florida

ACOUSTIC CUES FOR CONSTITUENT STRUCTURE: A TEST OF PERCEPTION

Is the major constituent boundary between subject and predicate identifiable on the basis of acoustic cues present in the immediate environment of the boundary?

To answer this question, word pairs A, B were placed in two sentences such that both sentences were unambiguous in their entirety; A+B was, taken separately, syntactically ambiguous (e.g., adjective + noun, noun + verb); in one of the pair of sentences the major constituent boundary occurred between A and B while in the other sentence the major boundary occurred immediately after B. The word pairs were cut from recorded readings of the sentences and presented to listeners who were asked to judge from which of the pair of sentences the particular word pair had been taken.

It was hypothesized that if the listeners performed this task with a high degree of success, an affirmative answer to the question above would be indicated: if their success were meager, a negative answer would be indicated.

The major finding was that a negative answer obtains for simple sentences; the affirmative case being held for complex sentences involving multiple underlying sentences.

The paper will report this experimentation and its results in some detail.

Henry Lee Smith, Jr., State University of New York at Buffalo

SUPRASEGMENTAL PHONEMES, MORPHOPHONES AND MORPHEMES IN ENGLISH

Suprasegmental phonemes of stress, pitch, and juncture are seen as the expression of suprasegmental morphemes, whose basic units are suprasegmental morphophones. The four stress phonemes enter into two stress morphophones--strong {´} and weak {˘}, the four pitch phonemes enter into two pitch morphophones--high {4} and low {1}, and the four juncture phonemes enter into three juncture morphophones--plus {+}, double cross {#}, and double bar {‖}. There is phonemic overlapping of /ˋ/, since it occurs both as an expression of {´} and of {˘}, and of /3/, since it occurs both as an expression of {4} and of {1}. Also {+} is expressed as /+/, /|/, /#/, /‖/, {#} as /#/ or /‖/, but {‖} only as /‖/.

Superfix morphemes are composed of two stress morphophones and {+} and are of two types, microfixes (with one {˘}) and macrofixes with two {´}'s--√ ˘ ˘+.´ , √ ´ +.˘ ˘, √ ´ +.´ . Superfixes compose both lexical phrases--phrase words and word phrases (="compounds")--and tactical phrases (=modifiers" and "head words").

Suprafix morphemes are composed of one pitch morphophone and one juncture morphophone, and are of two types, medial (with {+})--√ $^{1.}$+., √ $^{4.}$+.--and (non-terminating and terminating) megafixes, with {#} or {‖}.--√ $^{1.}$#., √ $^{4.}$#.; √ $^{1.}$‖., √ $^{4.}$‖..

Superfixes indicate internal (syntactic) relations; suprafixes, normally, enclose the five principal constituents of the (syntactic) sentence--viz., subject, predicator, complement, adjunct, and attachment, the last only arranged with megafixes. Megafixes are also required to indicate certain semological functions; to indicate inversion of principal constituents; to indicate insertion of material between principal constituents; to indicate the occurrence of more than one item from the same order slot; to indicate contrast between two items of the same rank. (Since /´/ always accompanies the /3/, /4/ of the 4. of the megafix under these circumstances, contrastive pitch is a more accurate term than contrastive stress.)

Donald F. Solá, Cornell University

DYNAMISM IN QUECHUA

The Quechua lexicon appears to contain a normal stock of roots which convey dynamic meanings. But in addition the verb inflectional system and the auxiliary verb root system include a number of formal contrasts which correlate with the semantic contrast between static and dynamic properties of actions. It may be argued that Quechua grammar emphasizes the static-dynamic contrast both in terms of the number of pertinent formal contrasts in the grammar and in terms of the frequency with which these contrasts operate in utterances.

Among other contrasts, the verb aspect category distinguishes absolute, static, and dynamic aspects, the verb auxiliary system includes static and dynamic forms of two verbs which mean "to be", and active verbals are distinguished from inactive verbals by the fact that active verbals always take the form of a certain kind of verb phrase while inactives do not.

It is the purpose of this paper to spell out the semantic range of each static and dynamic category in Quechua, and to demonstrate that probably only terms at the level of abstraction of static and dynamic suffice to imply the semantic space within which the Quechua speaker communicates.

Franklin C. Southworth, Columbia University

DEEP STRUCTURAL EQUIVALENCES IN COMPARATIVE SEMANTICS

This paper presents a technique for representing translation equivalences directly in terms of fundamental semantic components, instead of traditional units (words or morphemes). This approach is based on recently developed principles of structural semantics, according to which linguistic meaning is best described in terms of meaningful relationships among linguistic elements. (See the author's "Model of semantic structure", Language, 1967.) It will be shown that a lexicon based on these principles can serve as a basis for representing the fundamental equivalences between languages, and at the same time display the semantic structure of a language more clearly and efficiently than any existing type of lexicon. Implications will be drawn for bilingual lexicography, to the effect that a dictionary based on this approach (to be known as a structural dictionary) can provide the basic component for bilingual dictionaries between language X and any number of other languages; i.e. each bilingual dictionary which involves language X (X-English, X-Russian, etc.) can be based on the structural dictionary of X, which shows its basic semantic structure. Examples are drawn from work currently in progress on structural dictionaries of Marathi and Tamil.

Stanley Starosta, University of Hawaii

TSOU FOCUS

This paper is a description of the focus system of Tsou, an Austronesian language of Taiwan, in terms of the modified generative linguistic model described in Sora Syntax (Starosta, University of Wisconsin Ph.D. dissertation, Madison, August 1967). This model differs from others in current use chiefly in the treatment of agreement, which involves reassignment of semantic features between selectionally interdependent categories, and in the minimal reliance on transformations.

The inflection of Tsou verbs depends on the function of the noun phrase occurring in focus.

Application of the model outlined above to a description of this phenomenon, while helping to develop and clarify some of the features of the model itself, illustrate its possible superiority to other current models, including those explaining the function of noun phrases in terms of 'case', and suggest a new approach to such constructions as English Passive.

Karl V. Teeter, Harvard University

BLOOMFIELD AND MENOMINI

Much recent discussion of linguistic description done by or under the influence of Leonard Bloomfield seems to accept uncritically the once-fashionable assertion of Bloomfieldians themselves that the linguist should describe observable facts, and eschew theory; he should speak of language only "in terms that assume no more than actual observation discloses" (Bloch, obituary of Bloomfield). A consequence of this acceptance has been the further assumption that the work of Bloomfield deals only with superficial facts, and has minimal theoretical interest.

Study of the system underlying Bloomfield's brilliant though uncompleted description of the Menomini language quickly shows us that such a view cannot be maintained; Bloomfield's linguistic theories as exhibited in his practice were sophisticated and complex, if occasionally lacking clarity, and he did not hesitate to account for linguistic facts in terms assuming highly abstract (hence unobservable) entities and processes.

In this paper, I discuss the main points of Bloomfield's view of language systems as seen in his studies of Menomini.

Werner H. Veith, Georgetown University

"UMGANGSSPRACHE": LANGUE OR PAROLE?

1) The lecturer plays parts of a tape, spoken in a Silesian dialect. The phonology and morphology are not systematic. This can be demonstrated without any regard for the historical linguistic development, but by the "phono-scales", e.g. [ʃo:n, ʃon, ʃo, ʃʊn, ʃʊnt, ʃʊnd, ʃɔn, ʃɔ·, ʃɔ·^{a}, ʃɔ], compared to "schon" [ʃo:n] of standard speech.

2) The reason for these "phono-scales" is not the defective selection of the informant, but a kind of linguistic schizophrenia, which is heightened by the recording technique. For, in Germany, today, most dialect speakers adapt their speech to either dialect or standard. Here this principle is thwarted, because the investigator forces the informant to use his dialect while he himself is speaking standard. Theoretically, phono-scales in the above sense could possibly be found where communication systems of different linguistic strata collide. But the example cited is extreme in so far as the informant is already socially and geographically mobile. As a result of her expulsion from her native country, she is now living in a West Low-German dialect region, where to be understood she is forced to use standard speech in talking to the inhabitants. With the members of her family, however, she uses her native Silesian dialect. So, her communication system will change depending on her conversation partner.

3) The example is not unique, but can be found in most of the recent tapes of German dialects and points to a growing linguistic trend, which can be observed even now in German cities. This situation has been summarized as "Umgangssprache" (colloquial language), meaning anything between dialect and standard. But the above example demonstrates that the so-called "Umgangssprache" does not deal with a closed system of "Langue", but with different kinds of "Parole". The types of "Parole" can be distinguished from their origin, e.g. a mixture of dialect and standard, or dialect and dialect.

W.C. Watt, Carnegie-Mellon University

ENGLISH LOCATIVE SENTENCES

There is a peculiar interest which attaches to the set of English sentences containing 'Locative' verb-complements such as "on the table", "under the tarpaulin". These sentences--in a term, the 'Locative sentences'--take radically different forms according just to whether their subjects are 'Definite' or 'Indefinite', where definiteness is reflected in the Determiner: crudely, "the" or "a". Thus, with a 'Definite' subject a 'Locative sentence' takes the ordinary English subject-verb-complement form:

(1) The cobra is under the tarpaulin;

but the otherwise identical sentence showing an 'Indefinite' subject must take the contorted form:

(2) There is a cobra under the tarpaulin.

The "peculiar interest" of the 'Locative sentences' is due, not just to their having these two quite different forms, but also to the 'baroque surface structure' of the "There is..." form per se.

In undertaking a motivated account of these sentences I will present evidence that the "There is..." sentences mainly result from two inversions (with an intervening ancillary inversion): first, an inversion of subject and predicate, conditioned by the general rule in English that 'Indefinite' noun-phrases not be in leftmost or subject position; then the 'ancillary' verb/subject inversion; and finally, if "there" has been inserted, a last inversion which partially undoes the work of the first. Schematically, the generative path is: (a) A cobra is under the tarpaulin [last pre-transformational string]; (b) Under the tarpaulin a cobra is [from first inversion]; (c) Under the tarpaulin is a cobra [verb/subject inversion]; (d) Under the tarpaulin there is a cobra ["there"-insertion]; (e) There is a cobra under the tarpaulin [from final inversion].

Each element of this odd and Ptolemaic solution will be shown to have an independent basis elsewhere in the language.

Wolfgang Wölck, Indiana University

COMPARATIVE QUECHUA PHONOLOGY

Recent work on Quechua has confined itself almost exclusively to a (taxonomic) morphological description of particular dialects, giving only marginal attention to syntactic and phonological structure. Through lack of a suitable model of analysis, the small number of previous interpretations of Quechua phonology largely fail to indicate satisfactorily the phonological generalizations. The present paper makes the first attempt at expressing these generalizations. The study is based on personal field work data for Bolivian (Cochabamba, Siglo XX), southern (Puno, Cuzco) and central (Ayacucho) Peruvian Quechua, relying largely on published sources for northern Peruvian ('Wanka') and Ecuadorean Quechua. Comparison of the dialects leads to an underlying system of nine classificatory features (voc., cons., comp., grave, cont., strid., nasal, tense, checked) which suffice to specify the systematic phonetic representation of utterances in individual dialects by a series of phonological rules. A specification of the great amount of phonological redundancy in Quechua, particularly regarding the limitations upon the occurrence of segment sequences, will result in a simpler listing of morphemes, i.e., greater lexical economy, in a generative-transformational grammar of Quechua. While such generalizations on the systematic phonemic level are basically the same for all dialects, rules for specifying redundant features serve to distinguish between dialects. Changes in the segmental feature environment of such rules or in their position relative to other rules account for different surface representations of an identical underlying form in different dialects, a fact which in previous analyses often led to the assumption of phonemic contrasts.

John U. Wolff, Cornell University

THE HISTORY OF THE DIALECT OF THE CAMOTES ISLANDS, PHILIPPINES, AND THE SPREAD OF CEBUANO VISAYAN

The dialect of the Camotes Islands, Philippines, is usually considered a type of Cebuano Visayan dialect and mutually intelligible with Cebuano. However, certain of its syntactic and morphologic features (to be discussed in detail in the paper) indicate that it is genealogically not a Cebuano Visayan dialect, but rather a dialect of another closely related (but different) language, Samar-Leyte Visayan and that it has been strongly influenced by Cebuano to such an extent that it has, from the point of view of its current form, so to speak, switched allegiance from its original Samar-Leyte affiliation to Cebuano Visayan. The location of the Camotes dialect in the center of the Cebuano speaking area (and well separated from any Samar-Leyte speaking areas) allows us to infer that Cebuano has spread beyond its original location. Further, the study of the Camotes dialect lets us see the process by which Cebuano spread into the Camotes Islands and perhaps other areas as well.

Karl E. Zimmer, University of California, Berkeley

SOME OBSERVATIONS ON A SUBCLASS OF TURKISH INTERROGATIVES

Questions of the type "What did he say John is studying?" are in Turkish distinguished from statements only by suprasegmental features. Thus:

Hasan'ın ne okuduğunu söyledi? 'What did he say Hasan is studying?' is segmentally homonymous with

Hasan'ın ne okuduğunu söyledi. 'He said what Hasan is studying.', differing from the latter only in having stronger stress and a pitch rise on ne 'what', and a pitch rise sentence-finally. This is the only type of case in Turkish in which an interrogative construction cannot be signalled by segmental morphemes; it will be suggested that this fact can be explained by certain features of Turkish syntax, and that the intonational characteristics which can be regarded as a redundant accompaniment of other kinds of interrogative sentences consequently assume, in these instances, a distinctive function.

HANDOUT

Some Observations on a Subclass of Turkish Interrogatives

I. Hasan tarîh okuyor. 'Hasan is studying history'.

Hasan né okuyor? 'What is Hasan studying'?

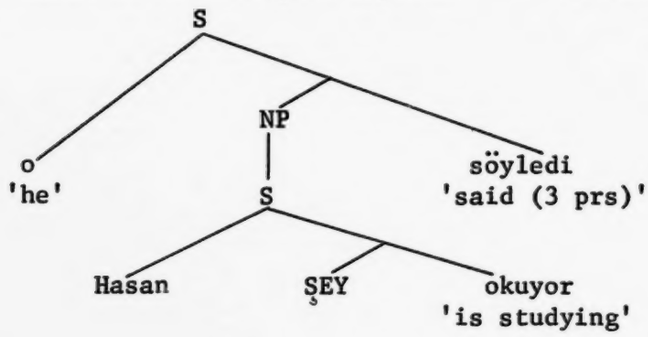
Hasan beşté geldi. 'Hasan came at five'.

Hasan nézaman geldi? 'When did Hasan come'?

Hasan kitabı baná verdi. 'Hasan gave the book to me'.

Hasan kitabı kimé verdi? 'Who did Hasan give the book to'?

II. Hasan'ın ne okuduğunu söyledi. 'He said what Hasan is studying'.



(ŞEY = some definite NP)

Nominalization:

Hasan SEY okuyor → Hasan'ın ne okuduğu
gen. 3 prs poss.

This nominalization is the object of söyledi 'said':

o Hasan'ın ne okuduğunu söyledi.
acc.

o 'he' can optionally be deleted:

Hasan'ın ne okuduğunu söyledi.

This contrasts with:

Hasan'ın ne okuduğunu söyledi? 'What did he say Hasan is studying'?

By Title Only

M.L. Apte, Duke University

"THANK YOU" AND SOUTH ASIAN LANGUAGES: A COMPARATIVE SOCIOLINGUISTIC STUDY

This paper compares the expression 'thank you' in English and its equivalent expressions in South Asian languages and shows that although widespread usage of 'thank you' in the American society reflects the institutionalization of a certain norm of social behavior, a similar concept does not exist in the South Asian language communities. Instead, the interaction among individuals is so codified and the convention of social behavior is such that the expressions equivalent to 'thank you' are rarely, if ever, used. If the concept is verbalized at all, the English expression 'thank you' itself is commonly used, which indicates the awareness on the part of the speakers that it is a borrowed concept. A further analysis of the convention of social behavior in the South Asian language communities suggests the institutionalization of a different norm and the resultant lack of usage of the terms equivalent to 'thank you'.

Nancy Arapoff, University of Hawaii

THE SEMANTIC ROLE OF SENTENCE CONNECTORS IN EXTRA-SENTENCE LOGICAL RELATIONSHIPS

Certain sentence connectors--words and phrases like HOWEVER, THEREFORE, TO BE SURE, AS A MATTER OF FACT--determine the logical relationship between, and thus the total meaning of, two sentences or groups of sentences. For example, two sentences like IT RAINED HARD and THE YARD GOT FLOODED will be interpreted very differently semantically depending on the type of sentence connector used between them. In IT RAINED HARD; THEREFORE THE YARD GOT FLOODED, the sentence connector THEREFORE is of a type indicating a "plus inferential" logical relationship (sub-type: "cause-effect"). But in IT RAINED HARD; AT LEAST THE YARD GOT FLOODED, the indicated relationship is "minus intensifying". The differing meanings of these relationships can best be described by supposition rules: THEREFORE sets up the suppositions that both sentences--S_1 and S_2--are known facts or established opinions, that S_1 has repeatedly preceded situations identical to that stated in S_2, and that S_1 caused S_2. AT LEAST sets up quite different suppositions: that S_1 is an imprecise statement, that S_2 is a known fact or established opinion, and that S_2 proves S_1 to be an overstatement or hasty generalization.

This paper describes five binary types of logical relationships set up by various sentence connectors, and states the supposition rules governing each relationship.

G. Koolemans Beynen, Fordham University

A COMPARATIVE SEMANTIC ANALYSIS OF THE POLISH AND RUSSIAN COORDINATIVE CONJUNCTIONS

The present paper investigates whether there is any regularity in the way three Russian conjunctions И, а, and НО are translated by the Polish conjunctions i, a, ale, and lecz. For that purpose the first hundred pages of L.N. Tolstoy's Anna Karenina in a Russian edition are compared with a Polish translation.

It appears that situations in which the same Russian conjunction corresponds to the same Polish conjunction have a semantic common denominator. This forms the basis for a semantic analysis.

It turns out that the conjunctions--with exception of lecz--can be arranged in pairs consisting of a Polish and a Russian conjunction, and that the difference between the two members is the same for each pair.

All conjunctions refer to the "message", i.e. they indicate different types of agreement or disagreement between parts of the "message", with exception of lecz. It refers to extralinguistic reality.

Robert Binnick, University of Chicago

THE LEXICON IN A DERIVATIONAL SEMANTIC THEORY

Arguments concerning the lexicon in transformational grammar have usually involved arguments concerning the nature of deep structure, and vice-versa. In the early sixties, there was developed an interpretive semantic theory, in which "projection" rules generated semantic readings for base structures, which involved a lexicon in which ambiguous words were distinguished by "markers" and "distinguishers" which established hierarchical families of meanings. The interpretive theory was rejected in favor of a derivational theory, in which the base rules generate well-formed semantic structures upon which transformations then apply. It has been suggested that in such a theory the lexicon must treat each meaning of an ambiguous item as a separate lexical item. However, when lexical items are systematically ambiguous, as is usually the case with verbs and adjectives (although not with nouns, which have markedly different lexical properties), this "Weinreichian" lexicon contains a good deal of redundancy, which violates the important simplicity principle of transformational grammar. The solution (independently partially suggested to me by J. Morgan and A.M. Perlman) is to specify in the lexicon the various base syntactic uses of each lexical item. Since each meaning of a systematic ambiguity occurs in a specifiably different place in deep structure, the Morgan-Perlman lexicon implicitly differentiates meanings correctly without redundancy of specification. Insofar as we oppose implicit relations in the base, however, this lexicon must seem dissatisfying. The answer apparently lies either in the direction of explicit relation markers such as in Fillmore's "Case for Case", or in an even more abstract base than at present.

Nemia M. Chai, Columbus College

BOUNDARIES OF MORPHOLOGY

The paper is a discussion of some similarities and differences among Charles F. Hockett, Bernard Bloch, Eugene A. Nida, and Zellig S. Harris (in this order) in regard to the following two questions: (a) what types of data does each of these linguists consider to be included in morphology?; and (b) what operation or operations does each employ to describe morphological features in grammatical description?

In the treatment of (a), each of the four linguists' domain of morphology is defined on the basis of the various types of linguistic samples which he describes within what he considers to be the morphological level of analysis. In the discussion of (b), each linguist's statements and operations are compared and/or contrasted within the two archetypical models of grammatical description, namely, "item and arrangement" and "item and process".

Anoop C. Chandola, University of Arizona

EXPERIENCE AND EXPRESSION IN LINGUISTIC THEORY - HINDI CASES

In the description of the Hindi cases, maximum generalizations are possible only when experience - the internal side of language - is related to expression - the external side of language. The description passes through the following components in the order given below: (1) lexicon; (2) grammar; (3) morphophonemics. Lexicon is the list of morphemes with their contextual meaning and phonetic representation. Grammar is the set of ordered rules by which these morphemes are assembled with each other. Morphophonemics is a set of ordered rules which state the changes in the lexically recorded phonetic shape of the morphemes when they are assembled by grammatical rules. In the grammar the experience of a particular case is conceptualized in the form of algebraical notation in the beginning. Any logical inconsistency between experience and expression are given by exceptional rules, e.g., rules for idioms. One change involves one rule. The method proposed here employs much fewer rules. The problem of "grammaticalness" is automatically resolved without resorting to the transformational theory. The analysis enables us to use the Hindi cases and their marker postpositions in appropriate contexts.

Ilah Fleming, University of Michigan

SOME STRATIFICATIONAL GENERALIZATIONS ABOUT APHASIC ERRORS

Viewing aphasia as a language disorder (due to brain trauma) in people who have previously acquired normal language usage, the kinds of errors made in aphasic language use have implications for the types of linguistic structures posited as underlying a language system.

Data will be presented illustrating certain general types of errors: so-called jargon, incorrect sequencing of elements, perseverative assimilation, and substitution of elements within a class. The generalization of the data into errors of these types seems to require a theory that posits and describes more than a single (or even 2) tactic system. The usefulness of Stratificational Theory for describing and making generalized statements about these data will be discussed.

William Hamrick, University of Cincinnati

PRONOMINALIZATION IN ENGLISH: A PROPOSAL

A grammar of English must be able to account for the fact that many noun-phrase types do not have a noun head. Most such phrases have a pronoun which functions in the place of the head, although it is possible for adjectives, and sometimes even adverbs, to do so as well. In English, these pronouns in all cases match up with some particular preadjectival modifier, but not always in the simplest way. This paper proposes a special pronominalization operator, which stands in complementary distribution to the slot for the noun head in the noun-phrase schema. With the addition of auxiliary operators for person and gender, which permit the derivation of the personal pronouns from the same unit as the definite article, the proposed operator will permit a relatively simple generation of all the English pronouns. It will also account for noun phrases which have an adjective but no noun head, as well as several other troublesome constructions. It suggests also the possibility of a simpler description of predicate adjective and adverb constructions.

Bates Hoffer, University of Hawaii

SEMOLOGICAL PREREQUISITES FOR SEMANTIC EXPOSITION

Work on a generative lexicon has often begun with the assumption that the problem is the formalization of the entry format in accord with some grammatical theory. Another underlying assumption is that current dictionary entries are adequate. In fact, of course, there are as yet no methods of determining adequacy. For some years now linguists have been demanding a "scientific" lexicography and a little progress has been made. This paper presents a schema for determining the number of contrasting senses of a polysemous form. For example, "bachelor" in normal usage has only two contrasting senses, not four as assumed in various works. The schema consists of collection of citations, a substitution test, a contrastive test, and a test for contrastive rule behaviour. Optimizing the sense division in this way eliminates redundancy, makes the entries more theoretically adequate, and provides the material on which work on a generative lexicon can satisfactorily operate.

Robert P. Illwitzer, Georgetown University

SOUND YOUR 'GEE'

As is well known, the velar nasal in English is not structurally parallel to the other nasals and can be treated as derived from a nasal plus velar sequence. This requires that it is the morpheme, rather than some larger element of language structure, that is the largest element having a phonological structure, and also that complementary distribution is specifiable in terms of morpho-syntactic categories as well as phonological. Thus, a small set of rules can provide appropriate phonetic representations by specifying a nasal as velar and deleting a voiced velar stop under appropriate conditions, which differ according to dialect.

The common colloquial pronunciation of the present participle (e.g. comin') and other analogous cases can be provided by a prior rule which deletes g optionally; this is an explicit characterization of the school-room admonition. Alternatively however, the colloquial pronunciation can also be provided by a subsequent optional rule which converts a phonetic velar nasal to apical. At present the merits of the two treatments are being compared.

J. Alexander Kerns, New York University
Benjamin Schwartz, Lincoln University

THE STRUCTURAL PATTERN OF THE PIE VERB AS COMPARED WITH THAT OF IMMEDIATELY NEIGHBORING FAMILIES

In the appendix Bemerkungen zur typologischen Stellung des idg. Verbums to his Das Verbum in den Sprechen der britischen, Inseln (1959), H. WAGNER expresses the view that the IE verb as it appears in the later-known branches is "stammflektierend", whereas it is "wurzelflektierend" in Greek and Indo-Iranic (p. 247), and comes to the conclusion that in its earliest phase PIE 'stood near to Hamito-Semitic' and only later 'moved in the direction of Finno-Ugric'. Both of these views and a variety of other theses implicit in them or at least closely related will be discussed, especially from the point of view of typical morphemic groupings and sequences.

Carolyn G. Killean, University of Chicago

INTERESTING FEATURES OF GENDER-NUMBER CONCORD IN MODERN LITERARY ARABIC

The statement of gender and number concord rules for literary Arabic requires the use of both a hierarchy and cross-classification of syntactic features. The grammatical categories of gender in Arabic - masculine and feminine - are distinctive for the operation of concord rules only when they co-occur with the number category Non-Plural. In the case of Plural, rationality is the most important feature of an Arabic Noun for the proper selection of concord rules. Only in the cases of groups of rational beings is plurality formally marked in concord relationships. For rational beings also, feminine stands for the semantic category Female and masculine for Male. For Non-Rational, Plural Nouns, the feminine singular rules of concord are operative. Thus, whereas in the singular, proper gender concord is determined from syntactic features generally assigned by the morphological surface structure of the Noun, i.e. feminine suffixes, concord in the plural is determined by the covert features of rationality and sex which are lexically assigned to Nouns.

Illustrations of the positional neutralization of the regular gender-number concord of Arabic Nouns are given. From these phenomena it is determined that the category of feminine is marked for Non-Plurals whereas for Plurals, the category of rationality is marked. It is interesting to note that the unmarked plural category Non-Rational and the marked singular category Feminine take exactly the same concord rules.

The interesting case of switched gender concord in numeral modification is not included in this analysis.

David Korn, Howard University

A GENERATIVE TYPOLOGICAL INVESTIGATION OF TURKIC WORD STRUCTURE

The most striking feature observed in connection with the structure of the Turkic word is the process of agglutination. This process involves the outward expansion of a given root morpheme by successive affixation of a great variety of derivational and inflectional suffixes.

There are two large classes of Turkic words, viz., those which are built up by affixation and those which are not. This study deals with the former, which in turn may be differentiated as nominal (N) or verbal (V). Hence, when used in this paper, the term "word" refers to agglutinated words and must be understood in this limited sense.

This study develops a typological grammar of word structures (well defined units in most Turkic languages) by using the generative model, and an attempt has been made to isolate special constructions and generate these by a transformational component. The only type of rule used is that which corresponds in syntactic analyses to the phrase-structure rule; it may be called the word structure rule and symbolized as W-Rule.

The bulk of the paper discusses the various types of affixes, their positional relationships, and develops the following grammar, greatly simplified here:

1. TW → Stem + C
2. Stem → Root + A + B
3. Root → N,V
4. $A \rightarrow A^N, A^V$
5. $A^N \rightarrow A^N I, A^N II$
6. $A^V \rightarrow A^V I, A^V II$
7. $B \rightarrow B^N, B^V$
8. $B \rightarrow B^N I, B^N II, B^N III$
9. $B^V \rightarrow B^V I, B^V II, B^V III$
10. C → CI, CII, CIII, CIV

Faze Larudee, Inter-American University of Puerto Rico

THE IMPACT OF GRAPHEMICS ON READING

This paper deals with the development of a self-contained system based on the graphemic structure of a language which uses alphabetic writing. The system was conceived in 1961 in answer to the question, "How can the descriptive analysis of an alphabetic orthography be employed in teaching reading?"

In this system called CREATIVE READING an inventory of the phonographemic and morphographemic features of the language under study is prepared. A pictorial medium is devised which enables the illiterate to make instant phonographemic associations. In this device pictures are used not for establishing pedagogical associations between objects and words but for linguistic identification of graphemes with the phonemes which they represent. Consequently, the system eliminates the need for learning the alphabet before the student begins to read. The predictable features of the orthography of the language under study are so controlled and arranged that with every step the student learns only one new phonographemic or morphographemic feature. By learning these features the student develops skills which enable him to read cumulatively, creatively, and rapidly.

CREATIVE READING is applicable to any language with alphabetic writing. The system has already been applied to English, Arabic, and Persian. Experiments with children and adults have produced anticipated results in all three of these languages. The Spanish version of CREATIVE READING is also under preparation.

On the basis of six years of research and experimentation in three languages I am convinced that through CREATIVE READING linguistic science has a unique contribution to make in combatting illiteracy throughout the world.

Anthony G. Lozano, Cornell University

DISCOURSE ANALYSIS OF A SPANISH SPEECH

If it is possible to discuss the framework of a spoken or written text, such an analysis must focus upon the relationships between syntactic structures as selected and organized by the text. Consequently, discourse analysis includes not only questions of the grammar of a language but also of selection and organization of linguistic structures. We can, therefore, assume an underlying framework for a given text. By assuming an underlying framework, we can postulate items which are not overtly marked and can introduce transformations or changes in order which may result in a clear-cut description of the underlying framework.

In applying these assumptions to the analysis of a political speech, we find morphemic intonations and syntactic structures in patterned sequences. It appears that speeches allow more repetitions of equivalence class members than formal written discourse. This is probably obligated by the nature of a speech. That is, written discourse can be re-read for clearer understanding while a speech may use the device of repetition for the same purpose.

The notions of equivalence classes, intervals, succession of intervals and the patterning of class occurrence as proposed by Zellig Harris are examined in the light of this analysis of a Spanish text.

Gordon W. MacLennan, Cornell University

THE PHONETICS OF A GAELIC DIALECT OF CAPE BRETON ISLAND, NOVA SCOTIA, CANADA

Introduction. Arrival of Gaelic communities in Canada - growth - decline - present position.

Aims of Research. Linguistic survey of the Canadian Gaelic dialects of Scottish origin. Backers and interested bodies. Preliminary trip to Nova Scotian Gaelic-speaking areas outside of Cape Breton Island. Paucity of speakers. Impressions. Main trip to Cape Breton Island, Inverness County. Informants - state of culture.

Work Method. Questionnaires - tape recordings - interviews - conversations - bilingual factor.

Preliminary Results. Material collected. Consonant system - vowel system - English influence - interesting developments and their effect on the phonemic and morphophonemic structure of the language.

Conclusion.

Adam Makkai and Valerie Becker-Makkai, University of Illinois at Chicago Circle

THE CASE FOR A LEXO-CENTRIC APPROACH TO DESCRIPTIVE LINGUISTICS

The present paper examines the implications of transformational-generative and stratificational grammar as they relate to fieldwork methodology.

We intend to show that both theoretical approaches pursue independent ends and fail to give sufficiently specific answers to modern descriptivists. We argue that syntactically and semantically updated traditional methods remain essential in the gathering of information in the field. In our proposed framework such an updating of traditional descriptivist techniques should put primary emphasis on a structurally organized dictionary.

We illustrate, with examples drawn from a number of languages, that the central unit of investigation in field work must be the lexeme (simple or complex) whose internal analysis will yield the morphology and the phonology, while its tactic properties (correlated with their syntactic behavior) yield the syntax. It is argued that for the field worker the debate between the "taxonomists" and the "rule builders" is a futile one, since in fieldwork the discovery of rules hinges upon the discovery of items obeying those rules, and vice versa: the discovery of items is facilitated by the existence of the very rules that their behavior in texts or utterances reveals.

George K. Monroe, Lafayette College

THE PHONOLOGICAL STRUCTURE OF MONOSYLLABIC MICROSEGMENTS IN GERMAN

In A comparative phonology of Russian, Czech, and German, Henry Kučera and George K. Monroe have proposed a definition of the phonological syllable and carried out informational research based on the syllables of the three languages. The syllables were obtained from the computer analysis of a corpus for each language, the size of which was adjusted so that a total of 100,000 phonemes was guaranteed. In connection with this research, the syllabic structure of the monosyllabic microsegment was shown for Russian and Czech in order to illustrate the phonotactic constraints of these two Slavic languages.

This paper reports a parallel analysis of the monosyllabic microsegment in German which has been carried out on the IBM 1130 computer at Lafayette College. It reports the inferences which can be drawn from the German analysis and compares the results with those of Russian and Czech. In addition, the results of a computer analysis of the structure of all German syllables are reported and compared with those of the monosyllabic microsegment.

Rose Nash, Inter-American University of Puerto Rico

TURKISH INTONATION: AN INSTRUMENTAL STUDY

A set of five Nasreddin Hoca anecdotes read by several adult male educated native speakers of Turkish was subjected to detailed auditory and instrumental description, and the invariant patterns of pitch, stress and rhythm isolated by comparing the individual versions. Using combined techniques of grammatical and musical analysis, the speakers' interpretations were reconstructed. Intonation in Turkish emerges as a system of hierarchically organized speech units formally defined by juncture and pause boundaries, which are semantically related by pitch motifs recurring on various levels of prominence. The largest unit analyzed is the oral paragraph; the smallest is the phonological phrase. An intermediate intonation unit containing other subdivision is posited, which cannot be accounted for in terms of the conventional sentence, traditionally used as a basis for assigning intonation patterns. This unit is termed Macrosentence.

In the introductory section of the study, an attempt is made to provide a general definition of intonation by identifying the physiological, functional and cultural bases of its raw material, speech melody. An approach to the understanding of intonation through music is suggested by the surface similarities shared by the speech melody and the folk music of many cultures. The basic principles of melody construction which apply to both speech melody and musical melody are discussed in terms of the differing requirements of music and language.

A.M. Perlman, Chicago State College

LEXICAL AND DERIVED DIPHTHONGS IN AMERICAN ENGLISH

In this paper a method is suggested for the interpretation of phonetic diphthongs in American English. Utilizing the generative phonological format of ordered rules and intermediate forms, this method classifies phonetic diphthongs into two types on the morphophonemic level: lexical and derived. The former occur in the dictionary entry for a word, while the latter do not appear in the phonetic representation but instead are derived from it by optional rules.

This method presupposes neither a "unitary" nor a "binary" interpretation of English diphthongs; it is essentially irrelevant to both. The unitary approach, forcing phones from a phonetic transcription through a "grid" of symbols, can result in arbitrary assignments of these phones to the phonemes of an overall pattern and can obscure what might be important phonetic distinctions. The binary approach can do violence to the traditional definition of "phoneme", since the same syllabic nuclei that are in free variation in one word might be meaning-distinguishing in some pair of words. The same transcription would then be phonetic in one case and phonemic in another.

The suggested treatment if diphthongs obviates these difficulties by simply recognizing two types of diphthongs: those that are present in the dictionary entry of a word (the lexical diphthongs) and those that do not occur in the dictionary entry but which are introduced by ordered, optional rules and which vary freely with monophthongs in actual speech (the derived diphthongs). Such a division is intuitively satisfying in that it allows us to consider as binary segments those nuclei which have always been regarded as diphthongs (it is difficult to accept Kurath's and McDavid's treatment of ɔy as a single segment in their overall pattern) and distinguishes those items which are diphthongal under any conditions from those that are not. At the morphophonemic level, then, there may be similarities in the lists of lexical and derived diphthongs, but the differences between the two inventories can be expressed at a deeper level, i.e., the phonetic. Data and examples are taken from the unedited files of the North Central Atlas of the United States and Canada.

Antonio A.M. Querido, Université de Montréal

ON REPRESENTATION OF SYNTACTIC FUNCTIONS BY MEANS OF BASIC PHRASE-MARKERS

The basic phrase-marker assigned to a sentence is supposed to represent not only the hierarchy of constituents and categories of constituents which form the sentence, but also the function that each constituent performs in the higher constituent which immediately dominates it. The category of a constituent is indicated by its label in the phrase-marker, and its function is a pair of categories [A, B] where A is the label of the dominated and B the label of the dominating constituent (cf. Chomsky's Aspects of the Theory of Syntax ch. 2).

To conform with these conventions the notation used to denote conjunction of constituents should not be the same as the one used to denote syntactic concatenation. This paper proposes to identify the function of a category of constituents with its "relative position" in the basic phrase-marker ("relative position" will be defined). If two or more co-ocurrent constituents have the same function they must occupy the same "relative position" (this is the case for the conjunction of constituents). Similarly if two or more categories may occur in the same "relative position" they will be assigned the same syntactic function. For example, if NP and S occur in the same "relative position", say "object" of SV, then [NP, SV] = [S, SV].

Some of the recent work on basic syntactic structures will be discussed in relation to the points just raised.

F.M. Richards, University of Illinois

LINGUISTIC ASPECTS OF THE SOUTH AMERICAN TWIN-MYTH

The Twin-myth of South America bears several linguistic affinities with the Twin-myths of Oceania and North America. Primarily, this involves phonetic similarity among names of corresponding Twins. Common names for the Twins are *Kari(s) and *Kamu(sh), among others. Terms for some of the special attributes of the Twins are likewise widespread in similar phonetic forms: we may mention *tala and *lapa(t). Most of these names and terms seem actually to have originated in South America, and to have diffused outward from there to Middle America, North America, Oceania, and (in a few possible cases) even further. Polynesia is especially heavily affected with terms from the South America Twin-myth complex, which may have some bearing on the possibility mentioned in the unpublished Ph.D. thesis of David H. Kelley (Harvard U., submitted 1957) that certain features in the Polynesian languages may have derived from the Mochica territory of Peru. In the light of the linguistic aspects of the Twin-myth, Paul Rivet's postulation of a migration from Australia to South America to account for linguistic affinities seems to have been backwards: the migration probably actually passed from South America to Australia.

Jerrold M. Sadock, University of Illinois

A NOTE ON HIGHER SENTENCES

The suggestion has been made that all sentences of a language are embedded into higher sentences which leave no direct remnants after the processes of transformation. This assumption will be shown to provide a non ad-hoc account of certain very fundamental phenomena of languages which it would otherwise be necessary to treat as idiosyncratic. Evidence for the existence of such higher sentences involving vocative expressions in English will be examined and discounted. Similar evidence from other languages will, however, be adduced which makes mandatory the assumption of a good deal of the structure of these higher sentences on the deep level if an observationally adequate grammar of these languages is to be achieved.

Sarita G. Schotta, Virginia Polytechnic Institute

THE SYNTAX OF NOUN MODIFIERS IN OLD SAXON

Using a randomly selected corpus of the Old Saxon Heliand (Behaghel-Mitzka, 1958), generative rules are formulated which account for the syntax of 95 percent (with $\pm$ .05 error) of noun modifiers. The sample was drawn without replacement and yields estimates of certain test parameters which allows me to infer that predictions from the sample will lie within a very narrow confidence interval with probability .95. In all test cases, the confidence interval, at probability .95, lay within 3 percent of the expected value of the population parameter.

The set of rules which generates prenominal modifiers is given below:

$$\text{Modifier(s)} + \text{Noun} \rightarrow \left\{ \begin{array}{lll} (D) & \left(\left\{ \begin{array}{l} A^{q} \\ A^{poss} \\ A^{er} \end{array} \right\} \left(\left(\left\{ \begin{array}{l} A^{q} \\ N^{s} \end{array} \right\} \right) \right) \right) & \\ \left\{ \begin{array}{l} A^{qt} \\ N^{s} \end{array} \right\} & A^{q} & \\ \text{Pre-A} + & A^{q} & \\ N^{s} + & \text{Areflex} & \end{array} \right\} \text{Noun}$$

Abbreviations are: A^{q} = qualitative adjective, A^{poss} = possessive adjective, A^{er} = adjective + comparative marker, N^{s} = noun + possessive marker, A^{qt} = quantitative adjective, Areflex = reflexive adjective, Pre-A = intensifiers, i.e. suidi, D = determiner.

Besides conclusions concerning the percentages of binary, ternary and other combinations (both pre- and postnominal), I show that most of the postnominal modifiers can be predicted on the basis of stylistic characteristics of the text and certain larger syntactic patterns. For instance, $N + A^{q}$ is found in parenthetical expressions: erlos obarmuoda and $N + A^{poss} + D + A^{q}$ occurs in direct address phrases.

Martha P. Taylor, Communications Consultants, Inc.

CONSONANT TO VOWEL RELATIONSHIPS--A NEW MODEL FOR LINGUISTIC ANALYSIS

Consonant to vowel relationships (per word) in English (and other languages) form a Set Series or Model, operating independently of syllabication and phonetics, to form a unique tonal and rhythmic modality which affects as well as represents the culture determinants of writer, reader or speaker. A trained analyst, utilizing these sets, can discern not only various psychological-linguistic traits of the communicator, regardless of content or context, but can also translate these sets into their corresponding artistic and/or musical modalities, thus indicating closer parallels between verbal and non-verbal thought processes than heretofore accepted. This new model could considerably widen the scope of linguistic research to shed light on both digital and analogical thought processes, since conversion by sets in the new model does not duplicate other analysis patterns. Examples from poetry, prose, a single sentence, an individual word, proper names, unrelated word series or lists provide evidence through the new model that language use, artistic and musical expression are closely correlated, although in most persons, particularly the verbally oriented, these correlations take the form of preference, attitude, or sympathetic resonance, rather than direct creation of all three modalities.

Paul R. Turner, University of Arizona

HIGHLAND CHONTAL DIALECT SURVEY

This paper describes the results of a dialect survey made in the summer of 1967 of sixteen Highland Chontal Indian villages in the state of Oaxaca, Mexico.

Three informants were selected from each village on the basis of these criteria: (1) they were males; (2) they were born and raised in the village; (3) they each belonged to different age groups (20-30, 40-50, 60 and above). Each informant was asked to reply in Chontal to an expanded Swadesh word list in Spanish and his response was tape recorded. These responses provided the data for phonological and lexical comparisons between age groups in a village as well as between villages. Each informant was also asked to describe his reaction to a severe earthquake that took place several years ago. This description was used as a check on the elicited material and as a basis for syntactical comparisons.

The results of this survey indicate that phonological comparisons are the most reliable and contrastive; the lexical less so; and, the syntactical least of all.

This paper also suggests that a dialect survey, although synchronic in nature, has important diachronic implications and can be used to identify linguistic change in time.

Anthony L. Vanek, University of Illinois

CAN A SYNTACTICALLY ORIENTED PHONOLOGICAL ANALYSIS SHED LIGHT ON PROBLEMS OF INFLECTION AND DERIVATION?

It appears from previous investigation of Czech that within the framework of a generative grammar the traditional concept of inflection can be handled by the transformational syntactic component. The deep structure contains the inserted lexical entries, i.e. the nominal and verbal roots. All inflectional segments, including the aspectual, temporal, gender/number and person/number suffixes, are introduced into the verbal or nominal constituent by transformational rules in the form of duplicate sets of syntactic features transferred from other constituents of the deep structure.

Those sets of syntactic features which are the output of the syntactic component are associated with their appropriate redundancy free phonological matrices (PM's) by a phonological insertion rule. Consequently, the PM's, together with the syntactic feature sets, constitute the input into the phonological component, i.e. the underlying phonological representations.

It appears that such phenomena as the ablaut, among others, can successfully be handled by the phonological component if syntactic features and/or the PM's of each morphological segment are taken into consideration by, and directly referred to in phonological rules. The primary goal of this paper is to investigate some phonological problems which can be resolved by this expedient.

John M. Weinstock, University of Texas

GRAPHIC DISTINCTIVE FEATURES

This paper deals with the systematic analysis of graphemes into distinctive features and the rules for generating the written sequence from the output of the syntactic component of a generative grammar. The practice of graphemic analysis has paralleled that of phonemic analysis, the end result usually being an inventory of graphemes together with the environments in which they occur and perhaps the relationships between the graphemes and phonemes. The inherent drawback with such analysis lies in the failure to analyze the letters or graphemes into distinctive features and then to write the rules which transform the output of the syntactic component into a written string. The system analyzed in this paper is that which occurs in the thirteenth century Icelandic manuscript AM 677 4^{to} B being primarily the Caroline minuscule.

Several alternate analyses of AM 677 4^{to} B into distinctive features are entertained with one being preferred in that it allows for a simpler set of rules. Several types of features are distinguished including those which may be called prosodic features on the similarity with generative phonology.

The feature rules are of two types: morpheme structure rules which parallel those of generative phonology somewhat and graphic structure rules. As in generative phonology there are blank filling rules and sequential constraint rules: the former are not related to the corresponding rules of generative phonology in that there is no direct relationship between graphic and phonological distinctive features. The sequential constraint rules, however, are nearly parallel to their phonological counterparts.

Finally a number of problems in the graphemic analysis are examined. It is shown how a feature approach can lend insight and even lead to solution of these difficulties.

Sayo Yotsukura, Georgetown University

AN INTRODUCTION TO JAPANESE SYNTAX

This paper seeks to describe Japanese in its own accord. For this purpose, the author asks a fundamental question of deciding kernels in Japanese. It is commonly said that the predicate is the only essential part of a Japanese sentence. In order to describe such a language, most people tend to first postulate a kernel sentence consisting of a subject and a predicate and then delete the subject to derive a subjectless sentence. However, if generality and simplicity are important in evaluating a grammar, the rule of deletion is not the right one to use to write a subjectless sentence in Japanese. For the so-called subject in Japanese is more like an adverbial modifier such as "later" or "at home" in "I'll do it later at home", rather than an actor or agent such as "I" in the same sentence. The author tries to prove that the so-called subject in Japanese is actually a modifier, and therefore, must be described by the rule of addition, rather than of deletion.

To throw more light to Japanese syntax, the author also tries to examine the behavior of sentences as units participating in larger constructions, rather than simply in terms of their own component structures. Just as a phoneme has various allophones due to where it appears in a sequence, so does a sentence as an emic unit have various "allo-sentences" due to the position in a discourse. In English, for example, the word home in "Where are you going? Home", could be viewed as an allo-sentence of "I'm going home", and the deletion of the subject and the verb is possible because of its position in the discourse. Human behaviors are the totality of verbal and non-verbal expressions. A description of a sentence would be complete only when its distribution in larger constructions is fully examined in addition to its component structure.